



Academic Calendar 1984-85

	X Courses*	Y Courses*
Orientation and Registration		September 13-14
Fall Quarter Classes Begin		September 17
Thanksgiving Vacation		November 22-23
Classes End	November 28	November 27
Examination Period	December 7	December 7
Fall Quarter Ends	December 8	December 10-14
		December 15
Christmas Break		
Winter Quarter Classes Begin		January 2
Classes End	March 8	March 15
Examination Period	March 11-15	March 18-22
Winter Quarter Ends	March 16	March 23
Spring Break		
Spring Quarter Classes Begin	March 25	April 1
Rush University Day		May 8
Memorial Day		May 27
Classes End	May 31	June 7
Examination Period	June 3-7	June 10-14
Spring Quarter Ends	June 8	June 15
Commencement Day		June 8
Break		
Summer Quarter Classes Begin		June 24
Independence Day Holiday		July 4
Classes End		August 28
Examination Period		August 29-30
Summer Quarter Ends		August 31

Academic Calendar 1985-86

	X Courses*	Y Courses*
Orientation and Registration		September 19-20
Fall Quarter Classes Begin		September 23
Thanksgiving Holiday		November 28-29
Classes End	December 3	December 13
Examination Period	December 4-13	December 16-20
Fall Quarter Ends	December 14	December 21
Christmas Break		
Winter Quarter Classes Begin		January 6
Classes End	March 14	March 21
Examination Period	March 17-21	March 24-28
Winter Quarter Ends	March 22	March 29
Spring Break		
Spring Quarter Classes Begin		March 31
Rush University Day		April 7
Memorial Day Break		May 14
Examination Period	June 9-13	May 26
Spring Quarter Ends	June 14	June 16-20
Commencement		June 21
June 14		
Summer Quarter Classes Begin		June 16
Independence Day Holiday		July 4
Classes End		August 22
Examination Period		August 25-27
Summer Quarter Ends		August 28

*To accommodate varying needs of the academic programs, Rush University has adopted a unique calendar. Listed above, the X and Y schedules have the same format, but the Y schedule is one week longer than the X schedule. All students except third- and fourth-year medical students take courses under the X or Y schedule. Third- and fourth-year medical

students have 4-, 6-, 8- and 12-week modules for their clerkships. Students taking courses in more than one college during the same quarter may have classes under both X and Y schedules. However, most students will follow one schedule only. These schedules permit the organization of class time in a manner consistent with unique program requirements.

Table of Contents

1984-85

Rush-Presbyterian-St. Luke's Medical Center, Chicago
Rush University Bulletin

FOR RESEARCH USE ONLY
Copy Provided By
Rush University Medical Center Archives

This Bulletin is published for the faculty and students of Rush University. The University reserves the right to make changes in any or all specifications contained herein and to apply such revisions to registered and accepted students.

Rush University
600 S. Paulina Street
Chicago, Illinois 60612

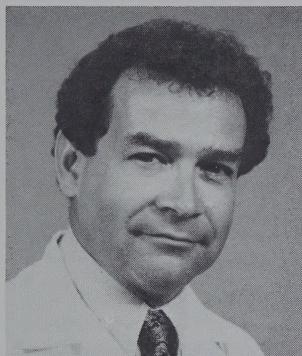
Rush University
Degrees in the Health Professions
1984-85

Rush Medical College	Doctor of Medicine
College of Nursing	Bachelor of Science
	Master of Science
	Practitioner Programs
	Anesthesia
	Community Health
	Clinical Specialist Programs
	Gerontology
	Medical/Surgical
	Oncology
	Parent/Child Health
	Psychiatry/Mental Health
	Doctor of Nursing Science
College of Health Sciences	Bachelor of Science
	Medical Technology
	Master of Science
	Audiology
	Clinical Nutrition
	Health Systems Management
	Medical Physics
	Occupational Therapy
	Speech-Language Pathology
The Graduate College	Doctor of Philosophy
	Anatomical Sciences
	Biochemistry
	Immunology
	Pharmacology
	Physiology
	Psychology

Table of Contents

Academic Calendars	Inside Front Cover
Degrees in the Health Professions	2
Message from the President	5
General Information	6
Medical Center—University—Philosophy—Programs of Study— Equal Opportunity Policy—Policy on Harassment—Research—Student Characteristics—Accreditation	
Campus Information	11
Alumni Relations—Alumni Associations—Biomedical Communications— Campus—Computer Based Education—Continuing Education—Counseling—Cur- riculum Development and Evaluation—General Educational Resources—Learning Resource Center—Learning Skills Center—Library—Student Affairs	
Academic Information	22
Registration—Grades and Transcripts—Commencement— Student Records—Human Investigation	
Financial Affairs	29
Tuition and Fees—Student Health Services	
Financial Aid	33
Programs of Study	36
(Philosophy—Admission—Curriculum—Academic Policies—Faculty Activities)	
Rush Medical College	37
College of Nursing	45
Undergraduate Program	45
Graduate Program	51
College of Health Sciences	58
Academic Policies	58
Department of Related Health Programs	59
Section of Medical Technology	60
Section of Clinical Nutrition	63
Section of Medical Physics	65
Section of Occupational Therapy	68
Department of Health Systems Management	78
Department of Religion and Health	79

The Graduate College	81
General and Academic Information	81
Division of Anatomical Sciences	84
Division of Biochemistry	87
Division of Cell Biology	91
Division of Immunology	91
Division of Pharmacology	95
Division of Physiology	99
Division of Psychology	103
Course Descriptions	106
Faculty	146
Departmental List	147
Alphabetical List	169
Endowed Chairs	210
Organization	215
Governance—Management—Affiliations—Committees	
Campus Map	Inside Back Cover



"Rush-Presbyterian-St. Luke's is a major academic medical center on the national scene in a leadership position in many of its attributes and delivering the kind of care that is really second to none. It is within this environment of excellence and balanced emphasis on patient care, education and scientific inquiry that future health professionals have the opportunity to grow in knowledge, understanding and skill."

*Leo M. Henikoff, M.D., President
Rush-Presbyterian-St. Luke's Medical Center*



GENERAL INFORMATION

The Medical Center	7
The University	7
The Philosophy	8
Programs of Study	8
Equal Opportunity Policy	8
Policy on Harassment	9
Research	9
Student Characteristics	9
Accreditation	10

The Medical Center

Rush-Presbyterian-St. Luke's Medical Center (RPSLMC) is one of Chicago's oldest health care organizations. Its heritage extends back to 1837 when Rush Medical College was established. St. Luke's Hospital was founded in 1864 and Presbyterian Hospital in 1883. The merger of these pioneer institutions in 1969 created the present day Rush-Presbyterian-St. Luke's Medical Center, which includes:

- Rush University, a health professions higher education institution that enrolled 1,192 students in 1983-84.
- Presbyterian-St. Luke's Hospital, a 903-bed major referral center that provides primary care to its immediate community and secondary and tertiary care to patients from across the country. The hospital admitted 30,434 patients and performed 16,583 operations in 1983.
- The Johnston R. Bowman Health Center for the Elderly, a 176-bed short-term rehabilitation facility that is a national model for hospital-based geriatric care. The center admitted 2,606 patients in 1983.
- Sheridan Road Hospital, a 186-bed community hospital serving the north side of Chicago. In 1983, a total of 2,080 patients were admitted to the hospital.

The Medical Center is the hub of a network of 15 hospitals and health care agencies in the Chicago area, and in Indiana, and of an educational network of 16 colleges and universities in six states. (See Rush University Affiliations.) Through its own programs and in conjunction with its affiliated institutions, the Medical Center is the central initiating component of a comprehensive cooperative health organization designed to provide care for some 1.5 million people in northern Illinois. This network includes:

Associated Institutions Christ Hospital, Oak Lawn, Illinois; 873 beds

Mount Sinai Hospital Medical Center, Chicago, Illinois; 464 beds

Schwab Rehabilitation Hospital, Chicago, Illinois; 67 beds

Affiliated Institutions Bethany Hospital, Chicago, Illinois; 212 beds

Central DuPage Hospital, Winfield, Illinois; 371 beds

Community Memorial General Hospital, LaGrange, Illinois; 276 beds

Copley Memorial Hospital, Aurora, Illinois; 319 beds

Galesburg Cottage Hospital, Galesburg, Illinois; 265 beds

Grant Hospital of Chicago, Chicago, Illinois; 508 beds

LaPorte Hospital, LaPorte, Indiana; 227 beds

St. Mary's Hospital, Streator, Illinois; 248 beds

Skokie Valley Hospital, Skokie, Illinois; 262 beds

Swedish Covenant Hospital, Chicago, Illinois; 355 beds

West Suburban Hospital Medical Center, Oak Park, Illinois; 374 beds

Mile Square Health Center, Inc., Chicago, Illinois; over 56,000 registered outpatients

The University

Rush University is the academic component of Rush-Presbyterian-St. Luke's Medical Center. Founded in 1972, the University has expanded from one college and fewer than 100 students to four colleges and almost 1,200 students. It includes:

- Rush Medical College, chartered in 1837, opened officially on December 4, 1843, with 22 students enrolled in a 16-week course. During the first century of operation more than 10,000 physicians received their training at Rush Medical College. Rush Medical College was affiliated with The University of Chicago from 1898 until 1942, when the medical college temporarily suspended its educational program though it continued its corporate existence. Its faculty continued undergraduate and graduate teaching of medicine and the biological sciences as members of the faculty of the University of Illinois. The charter of the medical college was reactivated in 1969 when it became part of the Medical Center, and, in 1971, it reopened with a class of 66 first-year students and 33 third-year students. First-year class size reached its projected maximum of 120 in 1976.
- The College of Nursing represents a combined heritage dating back to the late nineteenth century when its first antecedent, the St. Luke's Hospital Training School of Nursing, opened in 1885 to offer diploma education to nurses. In 1903, the Presbyterian Hospital School of Nursing accepted its first students and, from 1956 to 1968, nurses were taught at the merged Presbyterian-St. Luke's Hospital School of Nursing. Before the establishment of the College of Nursing in 1972, more than

7,000 nurses had graduated from these three schools. Currently, approximately 200 baccalaureate, master's and Dr. al nursing students graduate each year.

- The College of Health Sciences, established in 1975, traces its origins to the School of Medical Technology sponsored by Presbyterian-St. Luke's Hospital from 1959 to 1972. This school was the second largest of its kind in the city of Chicago. During its operation, it provided a one-year professional internship program to more than 200 baccalaureate students in medical technology. Today, the College of Health Sciences offers six programs at the master's level in addition to the bachelor's program in medical technology.
- The Graduate College was established as a separate academic unit in January, 1981, having previously been organized as the Graduate School within the College of Health Sciences. The Graduate College has six degree programs at the doctoral level in the basic science disciplines.

The Philosophy

The University was established in response to demands for a more effective and humane health care system that could supercede highly specialized, fragmented and often geographically inaccessible patient care services. The Rush System for Health, the conceptual framework adopted to address these problems, offers a prototype that could become a model for the delivery of health care in this country.

This system is unique in many ways. A central concept is that the academic and care elements of health delivery systems must be united. The implementation of this concept differentiates Rush from many typical health universities. First, at the foundation of the University is an outstanding patient care setting. Presbyterian-St. Luke's Hospital is recognized as one of the top 20 hospitals in the country; its existence as a high quality patient care institution made the development of the University feasible. Most faculty and students have clinical responsibilities in this setting or in one of the institutions linked to Rush-Presbyterian-St. Luke's Medical Center. Therefore, faculty function both as clinicians and as teachers. This combination ensures that faculty members bring up-to-date knowledge to the clinical setting while transmitting professional expertise in the classroom.

Another distinctive feature of Rush University is its commitment to health maintenance and illness prevention. Traditional approaches to health care delivery are based on giving care to the seriously ill. Today, only about 12 percent of the population requires such care. At Rush the focus in the classroom is on pathology and prevention of disease. This is supplemented by clinical experiences with inpatients and outpatients.

Programs of Study

Rush University confers the bachelor of science (B.S.), master of science (M.S.), doctor of nursing science (D.N.Sc.), doctor of medicine (M.D.) and doctor of philosophy (Ph.D.) degrees. Within the undergraduate nursing program, an R.N. completion option meets the needs of registered nurses for a university education. Both baccalaureate programs (nursing and medical technology) begin in the junior year of study after completion of two years of course work at other accredited colleges or universities.

Master of science programs are offered by the College of Nursing and the College of Health Sciences. The College of Nursing has concentrations in anesthesia, community health, gerontology, medical/surgical, oncology, parent/child health and psychiatry/mental health. In the College of Health Sciences, a student may major in audiology, clinical nutrition, health systems management, occupational therapy, medical physics and speech-language pathology.

Doctoral programs include the doctor of nursing science, doctor of medicine and the doctor of philosophy. Students in The Graduate College may concentrate in anatomical sciences, biochemistry, immunology, pharmacology, physiology or psychology. A number of students enroll in concurrent M.D./Ph.D. programs.

Equal Opportunity Policy

Rush University encourages and gives full consideration to all applicants for admission and financial aid regardless of race, sex, religion, color, national origin, age or handicap. The University is committed to attracting candidates who will help to make the population of health care professionals more representative of the national population. Beverly B. Huckman, equal opportunity coordinator for academic affairs, has been designated as

the University's coordinator for the implementation of these policies.

Policy on Harassment

The Management Committee of Rush-Presbyterian-St. Luke's Medical Center has adopted new policies and procedures on harassment for the University and nonacademic sectors of the institution. These policies and procedures are intended to emphasize the Medical Center's longstanding commitment to preventing harassment and to focus on the internal resolution of any complaints.

Under these policies and procedures the more familiar category of sexual harassment as well as harassment related to race, color, religion, national origin, ancestry, age, marital status, physical or mental handicap and unfavorable discharge from military service is prohibited. The provisions include protections for and prohibit retaliation against an individual making a complaint or supplying information about a complaint; they also incorporate protections for a person who considers himself or herself falsely accused. Inquiries or complaints of harassment from students, residents, or faculty members will be handled in a strictly confidential manner through the offices of the equal opportunity coordinator for academic affairs or the director of the student

counseling center. Every effort will be made to resolve a complaint informally, but procedures have been established for a formal hearing if that is necessary or preferred.

Copies of the Policies and Procedures on Harassment are available from the Office of the Equal Opportunity Coordinator for Academic Affairs (room 764-A, Academic Facility). If you have any questions regarding the matter of harassment, please get in touch with either the equal opportunity coordinator for academic affairs at 942-7093 or the director of the student counseling center at 942-3687.

Research

Research expenditures totaled more than \$10 million last year. The Medical Center encourages investigation of both the normal and disease processes and the distribution of the delivery of health care services. The faculty believes that inquiry into these areas by students should be encouraged if they are to become practicing professionals who will continue to learn throughout their careers. All research studies conducted at Rush-Presbyterian-St. Luke's Medical Center are listed in a research report published annually by the Office of Research Administration.

Student Characteristics 1983-84

Enrollment	No.	Sex		Race		Status		Age			
		Men	Women	Caucasian	Percent	Undergraduate	316	14	Undergraduate	22	19-49
Rush Medical College	512	Rush Medical College		342	170	Caucasian	86.3	Undergraduate	316	14	Undergraduate
College of Nursing		College of Nursing		37	434	Black	5.6	Master's	106	102	Graduate
Undergraduate	295	College of Health Sciences		24	84	Oriental	5.3	D.N.Sc., Ph.D.	68	11	Medicine
Master's	135	The Graduate College		15	23	Hispanic	2.0	Medicine	512	0	Nursing
Doctoral	41	Unclassified Students		23	40	Other	.8	Unclassified	5	58	Health Sciences
College of Health Sciences		Total		441	751			Total	1,007	185	The Graduate College
Undergraduate	28										26 22-48
Master's	73										
The Graduate College	38										
Unclassified	63										
Total	1,192										

Geographical Background. Of the students who matriculated in the 1983-84 school year, 84 percent were from Illinois. Undergraduate matriculants came from 38 schools in Illinois; 30 entrants previously attended school out of state.

Accreditation

Rush University is fully accredited by the North Central Association of Colleges and Schools, the regional accrediting association.

Rush Medical College is accredited by the Liaison Committee on Medical Education.

The College of Nursing is accredited by the National League for Nursing. The anesthesia nursing program is accredited by the Council on Accreditation of Educational Programs for Nurse Anesthesia.

The medical technology program is accredited by the American Medical Association's Committee on Allied Health Education and Accreditation.

The clinical pastoral education (CPE) program is accredited by the Association for Clinical Pastoral Education.

Approvals Joint Commission on Accreditation of Hospitals

Liaison Committee on Graduate Medical Education

Liaison Committee on Medical Education
American Medical Association for Residencies for Physicians

Department of Registration and Education
State of Illinois

North Central Association of Colleges and Schools

National League for Nursing

American Nurses Association for the Continuing Education Program

Council on Accreditation of Educational Programs for Nurse Anesthesia.

American Medical Association's Committee on Allied Health Education and Accreditation

Licenses Department of Public Health, State of Illinois

Cook County Board of Health

Memberships American Hospital Association

Illinois Hospital Association

Chicago Hospital Council

American Association of Colleges of Nursing
Blue Cross/Blue Shield Health Care Service Corporation

Association of American Medical Colleges

CAMPUS INFORMATION

Alumni Relations	12
Alumni Associations	12
Biomedical Communications	13
Campus	13
Computer Based Education	14
Continuing Education	14
Counseling Services	15
Curriculum Development and Evaluation	15
General Educational Resources	15
Learning Resource Center	16
Learning Skills Center	16
Library of Rush University	17
Student Affairs	17
Career Development	17
Cultural and Social Activities	18
Housing	18
Lockers	20
Mailboxes	20
Name Badges	20
Recreation	20
Rush University Day	20
Student Organizations	20
Student Representation	21

Alumni Relations

The Office of Alumni Relations is located in Room 940, Schwepppe-Sprague Hall. It has been established to provide a planned, coordinated program of service and activities of mutual interest and benefit to Rush University, the Medical Center, and all alumni.

Although Rush University, founded in 1972, is a relatively young institution, it has already conferred approximately 3,061 degrees in the health professions since its inception, and this dynamic growth continues.

The objectives of the alumni relations office are to provide channels for alumni of Rush Medical College, the College of Nursing, the College of Health Sciences, The Graduate College and the House Staff to: remain informed of current developments at the Medical Center; develop an active interest in and involvement with their alma mater; maintain contact with fellow alumni and faculty; take advantage of continuing education opportunities offered through Rush University; respond positively through both financial and philosophical support; and to promote and perpetuate the high standards of excellence in patient care, education, and scientific advancement consistent with the objectives of Rush-Presbyterian-St. Luke's Medical Center.

Formally organized alumni associations exist for graduates of Rush Medical College, the College of Nursing, the Department of Health Systems Management and the Section of Speech and Hearing Sciences. As the numbers of alumni increase from the other programs, organizational efforts are being undertaken for them as well. For more information concerning membership in one of the existing alumni associations or services available through the alumni relations office, call 942-7164.

Alumni Associations

Rush Medical College. The Alumni Association of Rush Medical College is an active organization dedicated to supporting the educational goals of the college. Purposes of the organization are: to maintain communications between alumni and the college; to honor alumni who have given distinguished service to the profession of medicine and/or to their alma mater; to promote and encourage the highest standards of medical education; to assist the faculty and staff of the college in any way possible; and to provide

financial support for the operation of Rush Medical College.

Prior to its reactivation in 1969, Rush Medical College conferred 10,976 Doctor of Medicine degrees. Alumni and Trustees of the Medical Center were responsible for keeping active the original charter granted to the college by the State of Illinois in 1837. The alumni also maintained the Rush Medical College Library and made financial grants for postgraduate education during the college's inactive period. Rush alumni practice in all 50 states and in 11 foreign countries. Since the reactivation of Rush Medical College in 1969, Rush University has conferred more than 1,100 doctor of medicine degrees.

The Alumni Association is represented on the Board of Trustees of Rush-Presbyterian-St. Luke's Medical Center by four alumni who are elected annually, one of whom is president of the Alumni Association.

College of Nursing. The Rush-Presbyterian-St. Luke's Nurses Alumni Association is an active organization with the following goals: to unite the graduates of Rush University College of Nursing, Presbyterian-St. Luke's Hospital School of Nursing, Presbyterian Hospital School of Nursing, and St. Luke's Hospital School of Nursing for mutual assistance, protection, and preservation of fellowship; to promote the professional and educational advancement of nursing; and to support the interests of the Rush University programs in nursing.

Over 2,000 graduates of these schools of nursing are active members of the alumni association. Each year, graduates return at homecoming to tour the facilities and to learn what is happening at the Medical Center. From 1887 through 1968 there were 7,221 graduates of the diploma programs of the various schools. Many of them have served with distinction around the world. Since the foundation of the College of Nursing in 1972, Rush University has conferred 1,610 nursing degrees.

Many alumni support the Rush University nursing programs financially through the Golden Lamp Society, which provides gifts to the college.

The association also gives an annual award to the outstanding graduate of the College of Nursing.

College of Health Sciences. The Alumni Association of the health systems management program is dedicated to the following goals: to advance knowledge and techniques in the field

of health systems management; to maintain interest in potential and enrolled students; to facilitate graduate participation in continuing education activities; to provide objective recommendations for the development of the program; to provide opportunities for graduates to share their work experiences with students and other alumni; to serve as a network for job search and career advancement.

The first class of ten students graduated in June, 1981. Since that time the Alumni Association has grown to 42 members. An annual meeting and reception is held in conjunction with the Health Systems Management National Invitational Symposium on Hospital and Health Affairs.

The Section of Speech and Hearing Sciences actively supports an alumni association of its graduates. This association supports current students in programs within the section, generates continuing education activities, and fosters professional development for its members.

Biomedical Communications

The Department of Biomedical Communications provides media production and technical services for patient care, education, and research. Offices are located on the fourth floor of the Academic Facility with the exception of the Communications Skills Center which is on the fifth floor.

The department includes eight sections.

- Communication development and design staff works with faculty to develop effective instructional programs and presentations with media; it also offers University courses in instructional design and media production.
- Communication Skills Center provides an area for faculty and students to conduct interviews and research projects, and practice communication techniques.
- Electronic engineering personnel design the technical aspects of media systems and also operate, maintain, and repair media equipment.
- Media production staff develops instructional programs and presentations in television and multimedia formats, providing a full range of services, including needs assessment, budgeting, planning, and program production.
- Media services offers assistance to users of audiovisual equipment and other

media materials for classes, meetings or individual instruction. Work-study positions are available.

- Medical illustration services range from realistic drawings for use in anatomy or surgery courses to visual clarification of an abstract idea. This section also renders charts and graphs, does graphic art and produces exhibits.
- Medical photography staff produces photographic prints, slides, transparencies, photomicrographs and motion pictures for national and international publications and conferences as well as classes.
- Rush Television Network is an educational/ informational internal television system that has two major foci. First, the Professional Education Network (PEN) provides support for continuing education, in-service training, and classroom activities. Second, the Patient Information Network (PIN) provides two free television channels for all hospital patients. These channels offer general information, health education programs, instruction in personal health care, chapel services, and various types of entertainment. Additionally, the departments of obstetrics and pediatrics each have separate channels for their specialized programs.

The Campus

The Medical Center now consists of 22 buildings on the 33-acre main campus and Sheridan Road Hospital on the north side of Chicago. The main campus includes patient care, education, and research facilities. Many of the buildings are connected by bridges or tunnels that permit inside travel to most facilities. Classrooms are located in the Academic Facility and Scheppe-Sprague Hall. Various other buildings have conference and seminar rooms. Specialized research laboratories are located primarily in Jelke as well as in Rawson, the Academic Facility and Scheppe-Sprague Hall.

Student life is centered in the Academic Facility and Scheppe-Sprague Hall. A few student dorm rooms are in Scheppe-Sprague Hall. The first floor houses the registrar, bursar, Office of Student Financial Aid, Office of Student Affairs and a large auditorium where most large group cocurricular events for students are held. A student lounge is located in the basement.

The Rush University Bookstore is on the first floor of the Academic Facility and the Medical Center cafeteria is on the second.

Program offices are in several locations.

- The Office of Medical Student Programs is on the fifth level of the Academic Facility.
- Nursing students and related health students (medical technology, audiology, clinical nutrition, occupational therapy, medical physics and speech-language pathology) will find their program directors on the fourth floor of Schweppé-Sprague Hall.
- Health systems management departmental offices are on the second floor of the Academic Facility.
- Students in The Graduate College will locate their division directors in Jelke, Rawson and the Academic Facility.

The Office of Student Affairs distributes a campus map to new students and publishes a student handbook annually. The handbook includes a yellow pages section that provides locations and telephone numbers of persons, offices, departments and buildings of interest to students.

Computer Based Education

Rush University is a leader in utilizing computers in health care education, and it continues to improve and increase its computer options. By spring 1984, Rush University students, faculty and staff were spending over 2,200 hours a month on computer-based education's (CBE) 16 PLATO terminals. Since 1981, over 400 faculty and staff, and 1,100 students have received personal introductions to computer-based education on PLATO and to over 850 programs in health sciences. They have also explored business and educational microcomputer applications on Computer Based Education classroom's four IBM PC and Apple II incomplete grade microcomputers. Use of the microcomputers has grown to over 300 hours per month.

In cooperation with the Data Center, the Computer Based Education classroom serves as a computer literacy center. Magazines, books, product announcements, and access to on-line and traditional bulletin boards are available.

PLATO terminals access a screen printer for copies of electronic notes, the results of statistical analyses, and self-assessment tests. Videodisc players located in the classroom

may be used under computer control or as self-contained educational resources. Rush has produced its first videodisc which contains 12,000 pathology and histology teaching slides and 20 minutes of cardiopulmonary resuscitation techniques.

Faculty have been actively involved in the development and utilization of material. They have developed a library of 46 programs (over 50 hours of computer-based instruction) and six large banks of computerized self-assessment test items. An electronic logbook for clinical tracking and tailored testing, recently completed, is expected to strengthen the operation of the medical clerkship and residency programs.

A summer development program provides opportunities for students and faculty to become involved with instructional computing. Computer Based Education hires students, teaches them to program, and matches them with faculty who are interested in utilizing computers within their courses. Instructional design and programming support are available to the projects. Students have an opportunity to learn about computing, work closely with faculty, and review their curricular material.

Students enjoy "Rushtalk," a student-only PLATO notefile in which issues are discussed, tales are spun, and future events are announced. Students working on graduate theses or coop notes have access to word processing. All students have access to electronic games on PLATO during the late night hours.

The adolescent care unit of the hospital has a PLATO terminal for patient and continuing education. Other departments have requested similar access.

Continuing Education

The University Office of Continuing Education sponsors medical, nursing and health professions symposia, workshops, and conferences for practicing professionals. Students may register at reduced rates for most Rush-sponsored programs.

The staff provides support services to faculty and staff of the University and Medical Center which includes: consultation in planning meetings; budget preparation; and marketing, which includes strategy and brochure development, printing, maintaining mailing lists, mail house selection and advertising. A computerized registration system maintains attendee records, confirmation letters, and attendance

lists. For each meeting, the office prepares name tags and certificates of completion.

All programs are supervised by an experienced meeting planner who directs the marketing activities, orders all supplies and audiovisual equipment and is on site during the program to assure its smooth operation. After the program concludes, the meeting planner prepares a computerized program evaluation, a complete financial report, and detailed marketing and registration summaries.

The office is located in room 599, Academic Facility. Information regarding services and future programs can be obtained by calling 942-7119.

Counseling Services

Open all year, the Student Counseling Center provides professional counseling, at no charge to students, for a variety of concerns ranging from academic problems to issues of personal development. Students have sought help for test anxiety, insomnia, study difficulties, career questions, eating disorders, parenting concerns, general anxiety, depression, and marital and/or relationship problems. In addition to individual and couple counseling, the center offers group and workshop experiences. Recently the center offered ongoing support groups for male nursing students, first-year medical students, and students with compulsive eating problems; in addition, a workshop on assertiveness training in medical school clerkship situations was offered.

Another important service of the center is its peer counseling program. Peer counselors are students who are available to talk to any student in person, by telephone, or via the PLATO computer system. Students volunteer to receive training in basic counseling skills at the beginning of each academic year. This peer counseling group, which comprises about 50 students from all colleges, meets regularly throughout the year for educational and social purposes.

The Student Counseling Center maintains strict standards of privacy and confidentiality. No information on an individual student is released to anyone, inside or outside of the University, without the prior consent of the student. No student contact with the counseling center becomes a part of any other University record.

The office is located on the eighth floor of Schweppe-Sprague Hall.

Curriculum Development and Evaluation

The Office of Curriculum Development and Evaluation offers University courses in measurement, evaluation, and curriculum design. Office staff consults and lectures in areas related to curriculum planning and educational evaluation. Students, faculty and staff are invited to contact the office for advice on design and execution of research studies or for assistance in one of the following areas:

- Curriculum and instructional development, which includes activities such as refinement of objectives and syllabi, development of instructional strategies and description of the instructional domain.
- Evaluative study of educational programs, which includes participant/observer course evaluation, test development, computerized test item generation, comparison of instructional strategies, and faculty development.
- Research planning and implementation, which includes research design, questionnaire development, survey design, design of sampling plans, instrument validation, statistical analysis, and interpretation of results.

Office staff consults in the development of proposals for education, research, and training grants, and it either consults or collaborates in grant-funded studies. Occasionally, staff members conduct research in health care education with professionals outside of Rush University.

General Educational Resources

The Office of General Educational Resources (GER) is responsible for providing students, faculty, and staff with a wide range of services necessary for carrying out both laboratory and classroom instruction. GER's management of the spacious, flexible facilities located on the seventh floor of the Academic Facility enables it to meet multiple needs for educational space, equipment, and other support. In addition, GER manages the flexible classrooms located at the south end of the seventh floor and also operates the Quick Copy Center. The multidisciplinary laboratory complex consists of ten laboratory/classrooms, eight support rooms and a central core demonstration area. Within the area are the electron microscope facilities and a small dark-

room for scientific use by faculty and students. GER staff offers cardiopulmonary resuscitation and basic life-support training for individuals and groups. The office is responsible for provision of microscopes and other scientific equipment for educational uses, including the microscope rental program for students.

The Quick Copy Center, located on the seventh floor of the Academic Facility, duplicates materials for educational purposes as well as general needs. A full range of services, including front and back copying, some illustration services, and multiple binding types are offered through the center. Special rates are available to students for note cooperatives and for other student copying needs. Personal work of over ten copies can be accommodated at special rates for faculty and students.

Students and faculty who have instructional needs which require special accommodations should check with the director of general educational resources for assistance. GER space is routinely open 50 hours during the week for planned classes and for study. Teaching and learning aids, such as microscopes, can be made available upon request. Classroom space is usually open for study purposes from 5:00 p.m. to 8:00 a.m.

Learning Resource Center

The Chauncey and Marion Deering McCormick Learning Resource Center (MLRC), an audiovisual learning facility, houses an audiovisual media collection and provides on-site support equipment for its use. MLRC is designed to encourage independent study and self-enrichment and to provide access to reserve audiovisual materials. Seven rooms allow large and small group media viewing with either 16mm film, 3/4" videocassette, 1/2" VHS videocassette, videodisc, slide, slide/audiocassette or audiocassette. Additionally, several of the rooms are connected to the Patient Information Network (PIN), the Medical Center's closed-circuit television patient education system. Another room houses 17 individualized slide/audiocassette carrels. MLRC staff is always available during service hours to help with equipment operation.

Primary Purposes of MLRC are to build the audiovisual media collection and provide service for the Medical Center which includes purchase, preview, rental, and interlibrary

loan. The present media collection numbers 4,393 titles and is accessible by a card catalog or an annually revised holdings list. All media in the collection have been previewed and recommended for purchase by faculty. All programs in the collection may be reserved in advance by faculty and students for use within MLRC or elsewhere in the Medical Center.

MLRC provides complete media reference services. The staff assists faculty and students in locating commercially produced media for use within their courses. This service includes consultation with Audiovisuals On-Line (AVLINE), the National Library of Medicine audiovisual data base, and compilation of media bibliographies from which faculty and students may select titles for preview.

MLRC provides free, portable electric typewriters and portable audiocassette recorders to students for overnight use.

MLRC staff will arrange individual and group orientations to departmental services upon request. Additionally, MLRC sponsors monthly showings of recent films of general interest to health sciences professionals.

Service hours are as follows:

Monday through

Thursday.....8:00 a.m.—11:00 p.m.

Friday.....8:00 a.m.— 6:00 p.m.

Saturday.....9:00 a.m.— 6:00 p.m.

Sunday.....1:00 p.m.— 7:00 p.m.

Hours may be shorter during vacation periods and in summer. MLRC serves as a 24-hour study hall.

Learning Skills Center

The Student Learning Skills Center offers academic counseling to students regarding such topics as time management, test taking, and study strategies. Students are assisted in developing realistic schedules which provide time for study that is integrated with class schedules and with nonstudy activities, especially those of a social nature. The development of clearly defined tasks and the establishment of priorities for completing these tasks are other dimensions of the time management issue. Counseling support on test taking includes anxiety reduction techniques, strategies for approaching a test as a whole and for answering specific test question formats, and systematic study planning to prepare for a test. Assistance to students regarding study techniques includes strategies for reading textbook assignments, note taking,

concept development, synthesizing, organizing, and sequencing material and other information processing techniques. Writing skills is another major area of academic support offered. Sub-skills included are identifying an appropriate topic, using library resources efficiently and effectively, organizing and outlining a paper, and such technical skills as proper citation and the development of reference lists.

The Student Learning Skills Center is intended to supplement the basic academic support provided by individual faculty members who serve as course instructors and as advisors. While referrals from these faculty members are common, students are encouraged to contact the center directly. Most of the work of the center is done with individual students. In addition, however, programs are offered in which learning skills issues are discussed with groups of students or with groups of faculty. For further information, call 942-2111.

Library of Rush University

The Library of Rush University, the oldest health sciences library in Chicago, serves the entire University and Medical Center. The collection of 49,569 books, 45,009 bound serial volumes, and 2,077 current subscriptions is supplemented by outstanding rare book and special collections. An attractively furnished two-story area, the library has large easy chairs, carrels, and tables for studying or reading.

A staff of 10 professional librarians and 16 technical personnel is available to assist library patrons. Guided tours and an orientation to the library are available during registration periods and on request. A slide/tape presentation helps to orient individuals and groups, as do the printed *Library Guide* and fact sheets that describe library services. The library staff also teaches classes on library research and tailors them to meet the specialized needs of different departments.

Two frequently requested services are access to the reserve book collection and reference assistance. All reserve books are in closed stacks behind the circulation desk. Another reserve set of self-serve, core health sciences textbooks is located on the upper floor of the library. Reference librarians provide assistance in locating and obtaining information or published materials. One reference tool is the computer search, which is one of the most heavily used services the library

provides. Over 200 data bases cover biomedical, health administration, social and behavioral sciences, business, education, and humanities fields. They may be searched for information (i.e., chemical formulas), references to published literature, or for the retrieval of an article or book pages. There is a charge for computer connect-time and for the printout of bibliographic references. These rates, which vary by data base, are listed in the reference office.

To obtain access to materials that it does not own, the library participates in several networks of health sciences, public, special, and academic libraries in Illinois and in the Midwest, as well as national and international networks. This service is available by completing an interlibrary loan form or by consulting the interlibrary loan librarian.

Criteria for the purchase of new books and journals are contained in the *Collection Development Manual* which is continually revised to reflect changing patient care, teaching, and research activities of the Medical Center. Suggestions for redefinition of these criteria or for specific new purchases are always welcome. Copies of the manual are available in the library's collection development office.

A monthly publication, *PULSE*, provides library news and lists new books and journal subscriptions. Free copies are available or patrons may be placed on a mailing list. Printouts of all journals held by the library are available in the serials department.

The library is open 92 hours a week with slightly reduced hours during the summer and vacation periods and extended hours prior to examination periods.

Student Affairs

The Rush University Office of Student Affairs works to provide an atmosphere that will enhance students' academic experience. The student affairs staff works closely with students, faculty and administration to identify areas of student need and to design and implement programs and policies to meet those needs. The office makes special attempts to sponsor cultural, social, and recreational activities that include students from all programs in the University.

Career Development. Each student is assigned an academic advisor who is a member of the faculty. The advisor is knowledgeable about the student's educational program

and provides assistance in curriculum selection, academic progression and professional and career development.

Within Rush Medical College, an assistant dean within the Office of Medical Student Programs has specific responsibility for providing counseling about specialty choice and applications for postgraduate residency positions.

Each winter quarter, the Office of Student Affairs sponsors a career fair to acquaint undergraduate students with a variety of job opportunities available at health care institutions. Additionally, the office keeps extensive files of agency brochures, job descriptions and announcements that are available to students throughout the year. Other files contain placement folders for senior undergraduate students that include limited biographical data and any faculty recommendations requested by students. Data from the placement folders is released only with the prior written authorization of the student or former student.

Cultural and Social Activities. Representing the entire University, the Student Programming Board (SPB) initiates and sponsors activities of interest to all Rush University students. The major objective of the board is to coordinate the cocurricular life of the Rush student community in conjunction with the University Office of Student Affairs.

In 1983-84, the SPB organized monthly Thank God It's Friday (TGIF) parties, a Mad Pumpkin Ball, square dance, beach party, talent show, Brown Bag Extravaganza lunches, and an ice cream party. Additionally, the SPB organized a film series that included *Raiders of the Lost Ark*, *Montenegro*, and *Atlantic City*, among others.

Representation on the Student Programming Board is as follows:

Rush Medical College	four students
College of Nursing	four students
College of Health Sciences	two students
The Graduate College	two students

Membership on the SPB is open to all qualified Rush University students and members are chosen by college-wide student elections. Students interested in serving on the Student Programming Board or in participating in student activities are encouraged to contact the Office of Student Affairs in 023 Scheppe-Sprague Hall or by calling 942-6302.

Other special events organized by the Office of Student Affairs in 1983-84 included: student picnic for campus residents, student

used-book sale, career fair, medical technology career luncheon, a student blood drive, a nursing big sibling program, and college bowl tournaments that included campus and regional competitions and sponsorship of an invitational tournament for other health professions schools.

Student affairs coordinates a unique cultural arts program to take advantage of the outstanding musical and theater attractions in Chicago. Discount tickets may be purchased through student affairs for metropolitan movie theaters, dramatic plays, Broadway musicals, the Chicago Symphony Orchestra University Night Concert Series and other cultural events. A campus student art fair, cosponsored by Rush Medical College, gives students the opportunity to display their art works to the Medical Center community.

Discount tickets to major sports events are also available through the Office of Student Affairs. Periodically, the office receives blocks of tickets to games with the Chicago White Sox, the Chicago Bulls, Chicago Black Hawks, and to other professional sporting events.

Housing. Students may live in either Kidston House, McCormick House, or on two floors of Scheppe-Sprague Hall. All of these buildings are centrally located within the Medical Center. Individual units range from single occupancy dormitory rooms in Scheppe-Sprague Hall to two-bedroom apartments in McCormick House that accommodate four students. When filled to capacity, current facilities meet the housing needs of more than 25 percent of the total student enrollment.

Application Process. Incoming medical students receive a housing application from the Rush Medical College Admissions Office after they have been admitted. Entering nursing and medical technology students receive housing applications from the Office of College Admissions Services after they have been admitted into a program of study. Students applying for admission to other programs receive housing applications from the program directors as part of the admission process. Returning students may request a housing application from the Office of Student Affairs, room 023, Scheppe-Sprague Hall.

Because on-campus housing is in great demand, the following set of priorities has been adopted by the Office of Student Affairs for assigning students to available units. Students in category number one receive the highest priority followed by those in category number two, etc.

1. Students who wish to retain their present University housing assignment for the following year.
2. Students who wish to change their present University housing assignment to a different unit for the following year.
3. Returning undergraduate students who would like to move into University housing.
4. Incoming undergraduate students from affiliated colleges.
5. Incoming undergraduate students from nonaffiliated colleges.
6. Incoming graduate and medical students who do not live in, and whose families do not live in, the Chicago metropolitan area.
7. Returning graduate and medical students who live in, or whose families live in, the Chicago metropolitan area.

These priorities will be used as a guide by the Office of Student Affairs when assigning housing. They assume, however, the students will have met all established deadlines regarding the application process. A returning student living in University housing, for example, who fails to submit a housing application for the succeeding year by the published deadline will lose priority for any housing. In addition, other factors such as financial need, room availabilities or unique individual circumstances may be considered as exceptions. Thus, the Office of Student Affairs reserves the right to make exceptions to these priorities when extenuating circumstances exist.

As already stated, on-campus housing is in great demand. Consequently, to maximize available space the following configurations will be used in the assignment process:

Schwepppe-Sprague One student
 Kidston Single One student
 Kidston Efficiency One student
 Kidston One Bedroom One student
 Kidston Two Bedroom Two students
 McCormick One Bedroom ... Two students
 McCormick Two Bedroom ... Three or four students

Notification of acceptance into University housing will be sent by the Office of Student Affairs to each student assigned to on-campus housing. For students who wish to retain or change their housing assignments for the following year, that notification will take place approximately April 15. Entering students must receive an acceptance for admission

before any housing notification will be sent. Notification to entering students will begin approximately May 1.

A lease will accompany each letter of acceptance into University housing. The lease, accompanied by a security deposit of one month's rent, must be signed and returned to the Office of Student Affairs, room 023, Schwepppe-Sprague Hall, 1743 West Harrison Street, Chicago, Illinois 60612, within the time specified in the cover letter and lease. Failure to return the lease and the security deposit within the time specified will result in the loss of the housing assignment. All inquiries regarding housing assignments should be directed to the Office of Student Affairs.

Rent is payable in equal quarterly installments. Students are billed for rent along with tuition and fees prior to the beginning of each quarter.

Consolidation Policy. In an effort to maximize the number of on-campus housing spaces available to Rush University students, some consolidation of tenants may occur. This consolidation policy will affect only those students who occupy an apartment by themselves that was originally leased to two or more students. Such a situation can occur when a roommate has left University housing during the course of the academic year.

If consolidation is necessary, the Office of Student Affairs will inform the affected student in writing. At that time the student will have the following options:

- Share an apartment with another student in any building who is also in need of a roommate.
- Find a Rush University student roommate of his/her choice.
- Have the Office of Student Affairs attempt to find a compatible roommate from the available applications.
- Pay the full rent of the apartment.

If the fourth option is chosen, the apartment will become a single accommodation only through the end of the current lease. If the student wishes to renew the lease, the student will have the option of remaining in the apartment with the understanding that he/she will receive a roommate or will be given an opportunity to move to another available apartment.

After all apartments have been consolidated, any available apartments will be offered to students desiring housing. If compatible roommates are not available, the unit may be rented as a single accommodation at

the full rental rate of the unit only until the end of the occupancy. Again, the student will have the option of remaining in the apartment with the understanding that he/she will receive a roommate or will be given an opportunity to move to another available apartment.

If you have questions concerning the application process, assignment process, or roommate selection, contact the Office of Student Affairs (telephone 942-6302). Questions regarding leases and maintenance should be directed to the Office of Property Management (telephone 942-6474).

Lockers. The University provides lockers for the storage of coats and books. New students receive locker assignments at orientation. Since the Medical Center assumes no responsibility for the loss of personal property from lockers, it is unwise to store valuables, such as purses or tape recorders, in the lockers. Additionally, be aware that all students share lockers. If any difficulties with a locker arise, contact the Office of Student Affairs.

Mailboxes. Campus mail is delivered to student mailboxes located on the seventh floor of the Academic Facility. Since no United States mail is delivered to these mailboxes, arrangements should be made to have all personal mail sent to home addresses.

New students receive mailbox assignments at orientation and should check for mail daily because University personnel distribute dated material through this campus system. Since students are held responsible for meeting deadlines announced in the dated material, students who will be off campus for an extended period of time should make arrangements to have a friend forward campus mail. The Office of Student Affairs is not responsible for mail that accumulates during a student's absence.

Students may obtain interoffice mail envelopes from the Office of Student Affairs. Address the envelopes and either return them to student affairs, the student mail basket at the receptionist's desk in Schewppee-Sprague Hall, or deposit them in the student mailbox located on the northwest wall of the mailroom on the seventh floor of the Academic Facility.

Name Badges. New students receive badges that identify students by name and by program. *Badges should be worn at all times and are required in patient areas.*

Security (1 Jelke) replaces lost badges for \$1. If the replacement is due to a change of name or because the badge itself is faulty, the

fee will be waived if the old badge is turned in.

Recreation. Rush University students have the opportunity to utilize several facilities in the area for recreation, relaxation, and physical conditioning.

- A jogging track (approximately one-fifth of a mile) surrounds four outdoor tennis courts next to the Atrium Building on the corner of Ashland Avenue and Harrison Street.
- An outdoor fitness cluster by Parcourse is located between the Professional Building and McCormick House. The fitness cluster consists of four series of exercises located in four individual modules--one for stretching and three others that strengthen the major muscle groups. Illustrated panels in the center of the cluster provide detailed instructions.
- Rush University rents the Wood Street Gym for student use. Located one block from Rush, this facility includes a gymnasium, exercise room with Tunturi exercycles, and locker rooms. In the past, special hours have been reserved for basketball, volleyball, Tae Kwon Do, floor hockey, and aerobic exercise.
- Rush University students also have an opportunity to use recreation facilities at the university center campus of the University of Illinois at Chicago. The south wing of the Chicago Circle Center provides space for archery, table tennis, bowling, swimming, billiards, handball, racquetball, tennis, badminton, volleyball, weightlifting and target practice. Students presenting a valid Rush University identification card are eligible for admission at reduced rates. Schedules of the facilities, rates, and hours of operation are posted in the Office of Student Affairs at Rush University.

Rush University Day. Rush University Day is an event held each spring for all students and faculty. A committee comprised of representatives from each college and the University plan a wide variety of activities. Events include exhibits, presentations, demonstrations, tours, and outdoor games. The class schedules enable students and faculty to participate in Rush University Day.

Student Organizations. Several student organizations are active at Rush. The Office of Student Affairs serves in an advisory capacity to these groups. A complete list of

student organizations is available from student affairs. Students interested in establishing a new organization are encouraged to contact student affairs.

Student Representation. Student representation is unique to each college. Class committee and Faculty Council representatives comprise the Student Council of Rush Medical College. The council's purposes are to increase communication among the four classes and to give students a combined, representative voice on issues that confront them. Elections for Student Council and several standing committees are held each January.

The Student Senate in the College of Nursing is comprised of students elected to the following committees: admissions and progression, curriculum, affirmative action, educational resource, faculty development, and faculty senate. Elections are held each fall and spring.

Students are elected to membership on the College Council in the College of Health Sciences and also serve on committees in individual programs. Students in The Graduate College elect two students to serve on The Graduate College Council.

ACADEMIC INFORMATION

Registration	23
Registration Process	23
Unclassified Students	23
Pass/No Pass Option	23
Independent Study	23
Identification Card	24
Drop/Add	24
Grades and Transcripts	24
Grading System	24
Grade Report	24
Academic Record	24
Transcript Requests	24
Commencement	25
Commencement Ceremony	25
Awarding of Degrees	25
Graduation Requirements	25
Dual Degree	25
Graduation Honors	25
Prizes and Awards	26
Student Records	27
Name and Address Change	27
Directory Information Policy	27
Student Records Policy	27
Human Investigation	28

Registration

Registration Process. Each quarter a timetable of classes is published by the Office of the Registrar for the subsequent quarter. Classes are filled on a first-come, first-served basis according to the following order of priority: continuing students, new students, and unclassified students.

Required Signatures. Registration forms are processed only if the required signatures are obtained. Each graduate student and R.N. completion nursing student must obtain his/her advisor's signature. Registration for more than 16 or 17 credits requires written approval. The nature of some course offerings may require the instructor's signature in addition.

Registration for Medical Students. Registration for preclinical studies is done administratively except for electives including the minicourse series (BVH 473). Registration for clinical studies is done in the Office of Clinical Curriculum.

Confirmation of Registration. Registration is confirmed on student data sheets which include billing and financial aid information.

Completion of Registration. Registration is complete only when tuition and any other charges for the quarter are paid or satisfactory arrangements for payment are made. Registration for subsequent quarters is denied to students not cleared by the bursar. Tuition is due on the first day of the quarter. (See section on Financial Affairs.)

Unclassified Students. The applicant for unclassified student status obtains a data sheet, registration form, and class schedule from the Office of the Registrar. Both forms must be completed and returned to the Office of the Registrar. The course director's signature on a registration form constitutes approval for registration. However, students in degree programs have priority for enrollment in courses. Therefore, unclassified student applications are processed only during the week immediately prior to the first day of classes. Notification is by mail. Unclassified students who fail to pay in full for tuition and other charges by the end of the first week of classes are dropped from courses.

A student may accumulate no more than 12 quarter hours of academic credit as an unclassified student. These 12 hours, equivalent to a full-time course load, may be taken in one quarter or over a period of time. Registration as an unclassified student which

results in more than the maximum number of hours (12) will be permitted if the dean (or his/her designate) of the college offering the course(s) has signed the registration form.

The bursar will charge tuition at the rate applied to graduate students.

Pass/No Pass Option. The timetable indicates all courses that may be taken pass/no pass. One can register to take a course pass/no pass simply by putting an X in the P-N column on the registration form.

A student deciding to take a course pass/no pass after having initially registered should complete the pass/no pass option form available in the Office of the Registrar. This form may require the signature of the appropriate advisor.

All medical school courses are graded honors (H), pass (P), fail (F).

Graduate students in nursing may take no more than 20 percent of their total graduate course credits under the pass/no pass option. Therefore, if a student graduates with 55 quarter hours, he/she may take 11 hours pass/no pass; the student who graduates with 125 quarter hours may take 25 hours pass/no pass. Thesis, directed clinical, and dissertation hours (NSG 598, 691, 699), which are only graded pass/no pass, are in addition to the 20 percent limit.

All elective courses, seminars, and research courses are graded pass/no pass in The Graduate College.

Independent Study. To register for independent study, students should complete the yellow and white independent study contract forms available in the Office of the Registrar. Health systems management students complete the yellow sheet and a separate form available in the health systems management office.

The small yellow sheet must be returned to the Office of the Registrar during registration. It identifies the title of the independent study to be posted on the student's transcript, the preceptor's name and office location, and the number of credits for the study. Since this yellow sheet is considered registration for independent study, an advisor's signature is required. All students, including undergraduates, must obtain the appropriate advisor's signature.

The second form is a long white sheet on which the objectives of the study are defined, a plan to meet those objectives is described, etc. It should be completed and approved by the preceptor, department chairperson, and

the program director no later than the first day of the quarter in which the independent study is to be taken. The student's preceptor keeps the contract.

Identification Card. Each student receives an identification card at matriculation. Each term the card is validated at the completion of registration. Registration is complete once satisfactory arrangements have been made for the payment of tuition and fees.

A valid ID card is needed for identification within the Medical Center complex, for use of the library and bookstore, and for admission to some school events.

Lost or stolen identification cards may be replaced at the Office of the Registrar during working hours. The office is open 8:00 a.m. to 4:30 p.m. There is a \$5 fee for this service.

Drop/Add. The only way to change course registration is to complete a drop/add form available in the Office of the Registrar. The official date of the drop/add action is the date that the drop/add form is processed by the Office of the Registrar. Graduate students and R.N. completion nursing students must obtain the appropriate advisor's signature before the form will be processed. Forms that must be returned for the advisor's signature will be sent through the campus mail.

Medical students wishing to change their clinical schedules must contact the Office of Clinical Curriculum at least four weeks before the start of the scheduled clerkship.

Grades and Transcripts

Grading System

Grade	Quality	Grade Points
A	Excellent	4
B	Good	3
C	Satisfactory for undergraduates but may not be acceptable at the graduate level.	2
D	Minimal pass for undergraduates and may not be acceptable at the graduate level in the College of Health Sciences. Not used at the graduate level in the College of Nursing.	1
F	Failure	0

P	Passing	—
N	Not Passing	—
H	Honors—Rush Medical College only	—
W	Withdrawal prior to midterm	—
WP	Withdrawal passing after midterm	—
WN/WP	Withdrawal failing after midterm	—
K	Credit earned through proficiency examination	—
NR	Grade not reported by instructor	—
I	Incomplete	—
CC	Course continues into the next quarter. Grade received at the end is then recorded for all terms covered by the course	—
XX	Participation in an ungraded residency or fellowship	—

Rush Medical College only uses honors (H), pass (P), and fail (F).

Grade Report. A quarterly grade report is mailed to each student's local home address as soon as grades have been recorded each term. Grades are usually mailed within five working days of the end of the examination period. Grades neither will be issued over the phone nor given to students who attempt to pick them up in person.

The quarterly grade report is the student's copy only, and it should not be accepted by an institution or agency in lieu of an official transcript.

Academic Record. The permanent academic record is the student's official transcript that includes all course work taken at Rush University. External transcripts for medical students reflect the highest grade reported for each course at the time a transcript is requested. The academic record is maintained permanently in the Office of the Registrar.

Transcript Requests. Copies of the academic record may be obtained at no cost to the student or former student. These transcripts are released only with prior written consent of the student. Students may either complete a transcript request form or write the Office of the Registrar, 1743 West Harrison Street, Chicago, Illinois 60612. The letter must include a handwritten signature of

the student. Transcripts will not be released if the student has an outstanding financial obligation to the University. Two days should normally be allowed for processing.

Transcript requests by medical students to be used in support of residency applications should be made to the Office of Clinical Curriculum of the medical college rather than to the Office of the Registrar.

Copies issued to students will be stamped in red ink "Issued to Student." All copies bear the signature of the registrar or his/her designee and the seal of Rush-Presbyterian-St. Luke's Medical Center.

Commencement

Commencement Ceremony. Rush University commencement is held annually at the end of the spring quarter. The exact date for commencement is published in the academic calendar appearing in class schedules and in the Rush University Bulletin. Students will be notified by the Office of Student Affairs concerning participation in the event. Students are expected to march in commencement exercises.

The Office of the Registrar asks students to specify how they want their names printed on their diplomas and in the commencement program. Students also will be asked to supply a forwarding address where mail can be sent after graduation.

Information regarding degree requirements, deadlines and eligibility to participate may be obtained from program directors. Students whose academic plans change, making them ineligible to participate in the June ceremony, will be deleted from the commencement list for that academic year. However, they are then eligible to participate the following June should they successfully meet degree requirements.

During the ceremony, diplomas are given to students who have completed their programs, discharged their financial obligations to the Medical Center, and returned all library books and other University property. Students will be notified of all outstanding obligations, and the Office of the Registrar will encumber the diplomas and transcripts of students until these obligations are met.

Awarding of Degrees. Rush University degrees are granted on the last day of the quarter in which all degree requirements are completed. When degree requirements are met during the break following a quarter, the

degree will be dated the end of the subsequent quarter. Degree requirements include all curricular and other program prerequisites, such as required courses, residency, minimum grade point average, cumulative quarter hours, etc. (See program descriptions for details.) Before a degree may be granted, all grades of incomplete (I) must convert to final grades.

Outstanding financial and other Medical Center obligations have no effect on the awarding of degrees; however, the diploma, student transcript and other notification of a degree awarded will be withheld until these Medical Center obligations have been met.

Graduation Requirements. See program descriptions for specific requirements. Each candidate for the degree of D.N.Sc., Ph.D., or M.S. with thesis is required to submit a degree approval form to the Office of the Registrar after completing all academic requirements including dissertation defense and submission of the dissertation to the library for microfilming. Doctoral candidates may not participate in the commencement ceremony before submitting this form.

Dual Degree. (Undergraduates in nursing and medical technology) Some affiliated colleges award a bachelor's degree to students who have transferred to Rush University. Students receive the degree after they have met degree requirements of the affiliated college. Often those requirements have been modified slightly to accommodate the unique nature of the affiliated-Rush program. Questions regarding degree requirements and eligibility should be directed to the registrar of the affiliated college.

To receive a degree from the affiliated college, each student must authorize the registrar of Rush University to send an official transcript of Rush course work to the affiliated college.

Graduation Honors. Candidates for the bachelor of science degree who have demonstrated academic excellence are honored at commencement by the Rush University faculty. Those earning a 3.4 or better grade point average based on six quarters at Rush are awarded the bachelor of science *cum laude*; those with 3.6 or better, *magna cum laude*; those with 3.8 or better, *summa cum laude*. Only Rush University course work is calculated into the grade point average. Honors appear on the student's diploma and

are announced during the commencement ceremony.

Prizes and Awards. The following prizes and awards are given annually at the Rush University Honors Ceremony.

The Aesculapius Award

This award is given to the outstanding resident-physician as voted by the medical students.

The American Medical Women's Association Scholarship and Achievement Citations

These citations honor women in the graduating class of Rush Medical College for outstanding scholarship and achievement.

The Dayton Ballis Humanities Fellowship

This award is given to a Rush Medical College student for academic excellence in the humanities related to medicine.

The Daniel Brainard Award

This award is given to the outstanding teacher in the basic sciences as voted by the medical students.

The Undergraduate Cardiology Award

This award is given to the graduating medical student who has had the best performance in a cardiology elective course.

The Clinical Nutrition Faculty Award

This award is given to the graduate student who has demonstrated the greatest potential for contribution to the field of clinical dietetics as selected by the faculty.

College of Health Sciences Dean's Award to Undergraduate Student

This award is given to the outstanding undergraduate student as selected by the faculty.

College of Health Sciences Dean's Award to Graduate Student

This award is given to the outstanding graduate student as selected by the faculty.

College of Health Sciences Faculty Award

This award is given to the outstanding teacher on the faculty as selected by the students.

The College of Nursing Dean's Award to Graduate Student

This award is given for superior academic leadership in the graduate nursing program.

College of Nursing Dean's Award to Undergraduate Student

This award is given for superior academic leadership in the undergraduate nursing program.

College of Nursing Undergraduate Faculty Award

This award is given to the outstanding faculty member as voted by the senior students.

Community Service Award

This award is given to the undergraduate nursing student who has made significant community service contributions.

The Department of Family Practice Award

This award is given to the graduating student who has demonstrated academic excellence in family medicine.

Department of Health Systems Management Award

This award is given to the outstanding graduate student as selected by the faculty.

The Nathan M. Freer Prize

This prize, endowed in 1892, is given to the outstanding senior medical student as voted by the faculty.

The John Giles Prize

This award is given for outstanding undergraduate work in epidemiology and public health as selected by the Department of Preventive Medicine.

The Graduate College Award

This award is given for excellence in research among students enrolled in The Graduate College.

The Graduate College Faculty Award

This award is given to the outstanding teacher on the faculty as selected by the students.

The Kellogg Scholarship Award to Doctoral Nursing Student

This award is given for superior academic achievement in the doctoral nursing program.

The Lemmon Company Student Award

This award is given to the graduating medical student who has excelled in the study of obstetrics and gynecology as demonstrated by excellence in scholarship and concern for patients.

The Henry M. Lyman Memorial Prize

Endowed in 1908, this prize is given to a junior medical student for outstanding work.

The Nephrology Award from the Muehrcke Family Foundation

This award is given to the graduating student who has demonstrated outstanding achievement in the field of nephrology.

The Occupational Therapy Faculty Award

This award is given to the student who has demonstrated the greatest potential for contribution to the field of sensory integration as selected by the faculty.

The Sir William Osler Pathology Prize

This prize is given to the medical student who has demonstrated outstanding achievement in diagnostic or experimental pathology.

The David Peck Prize

This prize is awarded to the student who has made the greatest contribution to the Student National Medical Association.

Bernard R. Pennington Memorial Award

This award is given for excellence in pastoral service as selected by the faculty in the Department of Religion and Health.

The Phoenix Award

This award is given to the outstanding physician-teacher as voted by the medical students.

Professional Organization Award

This award is given to the undergraduate nursing student who has demonstrated outstanding involvement in professional organizations resulting in relevant contributions to the nursing community.

Rush-Presbyterian-St. Luke's Nurses Alumni Association Award

This award is given to the outstanding graduating nursing student.

The Sandoz Award

This award is given to the graduating student who has demonstrated outstanding achievement in the field of psychiatry.

Special Project Award

This award is given to the undergraduate nursing student who has demonstrated outstanding creative and original work as evidenced by a course project.

Speech and Hearing Sciences Award (Audiology Major)

This award is given to the outstanding graduate student as selected by the faculty.

Speech and Hearing Sciences Award (Speech-Language Pathology Major)

This award is given to the outstanding graduate student as selected by the faculty.

The Upjohn Achievement Award

This award is given to the senior medical student with the best research project.

Writing Award

This award is given to the undergraduate nursing student who has demonstrated outstanding scholarly and/or creative writing.

Student Records

Name and Address Change. The Office of the Registrar maintains the current official listing of student names and addresses for Rush University. It is the responsibility of the student to keep the Office of the Registrar

informed of changes in this information. A name/address change form is available in the Office of the Registrar. A copy of this form is automatically distributed to the bursar, Office of Student Financial Aid, Library of Rush University, and the Office of Student Affairs.

Directory Information Policy. Certain information classified by Rush University as directory information may be disclosed to the public. These are items of directory information: student's full name, local address and phone number, date and place of birth, home town, major field of study, year in school or class, participation in officially recognized activities, dates of attendance, degrees and awards received, previous educational institutions attended, previous majors, previous degrees and dates earned.

Each fall quarter the *Rush University Student Address Book* is published for student, faculty, and staff use. It contains student names, local addresses and phone numbers, colleges and classes. At the time of commencement exercises this information may be released in public announcements: student's full name, degree and major, previous institution and degree(s) and year(s) earned, and home town.

Students may restrict the release of any item of information considered as directory information on a form provided in the Office of the Registrar, 1 Scheppe-Sprague Hall, by Friday of the first week of classes in each quarter.

Student Records Policy. The Family Educational Rights and Privacy Act of 1974 protects the privacy of current and former students enrolled in most educational institutions. Rush University has seven official student records. A student or former student may inspect and review these records after making an appointment with the appropriate office. The records and their locations are as follows:

- Official academic record: Transcript—Office of the Registrar, 1 Scheppe-Sprague Hall.
- Registrar's folder: Contains admission application, transcripts from other schools, registration information—Office of the Registrar, 1 Scheppe-Sprague Hall.
- Dean's folder: (Rush Medical College) A complete academic file which contains grade reports, written evaluations of clinical work, curricular flow charts, copies of correspondence and of all material in the

Registrar's folder—Office of Clinical Curriculum, 5 Academic Facility; (College of Nursing) Contains written evaluations of clinical work, curricular flow charts, grade reports—Office of the Program Directors, 4 Schweppé-Sprague Hall.

- Department folder: Contains written evaluation of clinical work, curricular flow charts, grade report copies—Office of the Program Directors, clinical nutrition, medical physics, medical technology, occupational therapy, and speech and hearing sciences—4 Schweppé-Sprague Hall; religion and health—7 Schweppé-Sprague Hall; health systems management—2 Academic Facility; The Graduate College Admissions Office, 4 Academic Facility.
- Financial affairs folder—Records showing all billing and payments, notes, and correspondence dealing with a student's finances—Office of Student Financial Affairs, 1 Schweppé-Sprague Hall.
- Financial aid folder: All information concerning financial aid for the student—Office of Student Financial Aid, 1 Schweppé-Sprague Hall.
- Placement recommendations: Contains letters of recommendation filed by faculty members at the request of the student—Office of Student Affairs, 1 Schweppé-Sprague.

Students may obtain copies of transcripts from the institution that holds the original records. Other portions of their records will be copied upon request. The request must be in writing and signed, must specifically identify the record desired and include the student's major, year, date of birth, and social security number. There is no charge for copies of the student transcript. Other reproductions cost 50 cents per page. The University honors requests providing there is no outstanding obligation to the Medical Center. Students within

commuting distance may be asked to review the desired data in person.

Students may request that the University amend information in their records they believe to be inaccurate, misleading, or in violation of their privacy. If the University refuses to amend a record, the student may request a hearing to challenge that decision. A hearing will be granted. Students may place in their educational records comments upon information in the records and/or state their grievances with a decision not to amend the record.

Administrators who maintain the records adhere to a policy of limited access to administrators and faculty of Rush University who have a need for information in order for their offices to function, to determine academic progress, or to designate award recipients. Other persons or organizations given access are those responsible for accrediting the institution, for providing the student with financial aid, for complying with a judicial court order, and for protecting the health or safety of students during an emergency.

Disclosure of any student's record to others not listed in these policies must have prior written consent of the student. Requests for information and letters of consent are kept with the records.

Human Investigation

Any project or study involving human subjects must have approval of the Medical Center Committee on Human Investigation. Studies in the community as well as within the Medical Center must have this approval. The Office of Research Administration handles all requests and has established the protocol for proper investigative procedures.

FINANCIAL AFFAIRS

Tuition and Fees	30
Tuition	30
Fees	30
Payment	30
Refund Policy	31
Student Health Services Program ..	31

Tuition and Fees

Tuition

Tuition and fees for the 1984-85 academic year follow. For estimates of other expenses—see the *Student Financial Aid Handbook*.

	Full Time (Per Quarter)	Part Time (1-11 Hrs.) (Per Quarter Hr.)
Undergraduate	\$1,735	\$150
Graduate (M.S., D.N.Sc., Ph.D.)	2,030	170
Rush Medical College		
Years 1 & 2	4,180*	
Years 3 & 4	3,135*	

Fees.

Enrollment Fee. Students in special programs are assessed \$100 per academic quarter. Students enrolled in a noncredit residency or academic enrichment program prior to receipt of their degree must be registered for such a course and pay the enrollment fee in order to retain their student status. Single hospitalization insurance is not covered in this fee while enrolled. Single coverage under ANCHOR is provided at no extra charge. (See Student Health Services Program for further information.)

Insurance. All students must have hospitalization coverage. (See Student Health Services Program for further information.)

Application Fee. A nonrefundable application fee of \$25 is required of all applicants to offset the expense of processing the application, evaluating credentials, and maintaining a library of evaluation aids.

Readmission Fee. Students who have withdrawn or been dismissed from a program must pay a nonrefundable \$30 readmission fee. This fee helps offset the processing of the application for reenrollment, evaluation of credentials and committee review and deliberation time.

Enrollment Deposit (Colleges of Nursing and Health Sciences). A \$50 enrollment deposit is required of all students (including affiliated students) prior to matriculation. This guarantees students a place in the entering class. This deposit is nonrefundable and applies toward payment of the first quarter tuition.

Microscope Rental. Microscopes are available to students for a rental fee which covers repairs or replacement as well as administration of the rental program.

*First- and second-year medical students are assessed tuition for fall, winter, and spring quarters. Third- and fourth-year medical students are charged for fall, winter, spring, and summer quarters.

Returned Checks. If a student gives the University a check that is returned by the bank upon which it was drawn, marked "not sufficient funds," "payment stopped," or "account closed," a \$10 charge will be assessed for each occurrence.

Payment for Tuition, Fees, and On-campus Housing

The following statement represents the payment policy for all Rush University students.

Payment for tuition, fees and on-campus housing, or satisfactory arrangements for payment, must be made with the Office of Student Financial Affairs before registration is complete. Students may not attend classes until after registration is complete. Any exception to this policy must be approved in writing by the vice president for academic resources.

Students have the responsibility to complete one or a combination of the following courses of action on or before the first day of classes each quarter:

- Pay total tuition, fees, and on-campus housing charges for the quarter.
- Complete a Deferred Payment Plan Contract. This plan requires that one-third tuition, all fees, and a \$15 service charge be paid on or before the first day of class. Additional payments of one-third are due on the fourth and eighth Mondays of the quarter. Contract forms are available in the Office of Student Financial Affairs.
- Complete a Financial Aid Late Payment Form. This form, initiated by the student and completed by the Office of Student Financial Aid, is to be filed when the student is receiving external aid that has not arrived at the University by the beginning of the term. This would occur, for example, when a guaranteed loan is needed to pay tuition and the proceeds from the bank have not been received by the beginning of the quarter. For that portion of tuition and fees not covered by this external aid, the student must complete one of the above steps for the remaining amount. Forms are available in the Office of Student Financial Aid.

Those students who have not made satisfactory arrangements will be given notice by mail during the second week of classes that they are delinquent in their financial obligations to the University. The notification will inform the

students that they have until Friday of the third week of classes to satisfy all such financial obligations. On Monday of the fourth week of classes, those students who have not made satisfactory arrangements will be notified that their registration has been cancelled for the quarter.

Students who choose the Deferred Payment Plan Contract and who fail to make a payment on the specified due dates will have notification mailed to them on Monday of the following week that they are delinquent in their financial obligations to Rush University. The notice will inform those students that they have until Friday of that week to satisfy their financial obligations without penalty and that failure to do so will result in the cancellation of their registration for the quarter.

On Monday of the following week all students remaining delinquent under the Deferred Payment Plan will receive final notice that they have been dismissed and that their dismissal has resulted in forfeiture of all payments made.

Any student dismissed under this policy will:

- Be covered by ANCHOR/Blue Cross for the remainder of the quarter if the appropriate fees have been paid.
- Be dismissed from on-campus student housing.
- Lose library, MLRC, locker, and mail privileges.

Students who are reinstated by decision of the vice president for academic resources will pay a reregistration fee of \$30.

Students who wish to reenroll the following quarter or year should contact the registrar of Rush University.

Refund Policy

Official withdrawal or dismissal from a course or from the University entitles a student to a refund of tuition according to the following schedule. No fees are refundable.

A student may receive a 100 percent refund if withdrawal occurs during the first calendar week in which the quarter begins. Otherwise, refunds will be made as follows:

Second week	80 percent refund
Third week	60 percent refund
Fourth week	40 percent refund
Fifth week	20 percent refund
After fifth week	no refund

Refunds will be shown as credits on the student's account unless the student requests a

check for the amount of refund, less any amount still owed for other charges.

Normally, checks are processed within two weeks. Students are not notified when the check is available in the Office of Student Financial Affairs.

Student Health Services Program

The University's health services program is designed to promote the health and well being of its student population and to protect the individual student from undue financial hardships that a medical emergency could cause. To accomplish this the University offers membership in two separate group insurance policies which, when combined, fulfill its goal of student health maintenance and protection.

The first is a group hospitalization policy underwritten by Blue Cross covering most of the hospital charges related to an inpatient stay or an emergency room visit. Applications are available at the Office of Student Financial Affairs and at fall registration when all students are required to provide proof of hospitalization coverage or sign up for Rush's Blue Cross plan. As with all group policies, there is an annual open enrollment period when a subscriber may add dependents or make changes. Rush's Blue Cross enrollment occurs during fall registration, and the only other time a dependent may be added is on the actual date of marriage or the birth of a child. A booklet available at the student financial affairs office explains in more detail the exact coverage and exclusions. The student financial affairs office is located in 101 Schweppe-Sprague Hall.

Although membership in Rush's Blue Cross plan is not mandatory, it is a requirement that all students carry some hospitalization insurance from their date of matriculation until graduation. Upon entering Rush many students are covered by a family policy; however, all family policies have maximum age limits for children, normally 19 to 23 years of age. As a result, even though a student may be adequately covered upon entering Rush, at some date that coverage will stop. The University has no way of knowing when this will occur; consequently it is the student's responsibility to notify the student financial affairs office prior to that critical birthday so that there will be no lapse in coverage. This is extremely important, as no student should be without hospitalization insurance.

The second group plan available at Rush is the ANCHOR Health Maintenance Organization. ANCHOR offers outpatient primary care aimed at the prevention of illness, maintenance of good health, and early detection and treatment of disease. When illness does occur, comprehensive care is provided through ANCHOR's group of primary care physicians and specialists. ANCHOR's benefits cover most physician and related fees including up to 20 outpatient mental health visits per calendar year for short-term evaluation and crisis intervention. Membership in ANCHOR is included in tuition or enrollment fees for Rush students. It is also available during summer quarters and for up to three months after graduation for a separate fee. Every year during fall registration, all students must fill out a new ANCHOR application regardless of whether they were covered during the summer or not. As with Blue Cross, fall quarter registration is the annual ANCHOR enrollment time at which students can add a spouse or child to their policy. The only other time additions to one's coverage can be made is on the actual date of marriage or birth of a child.

Currently, ANCHOR has thirteen offices throughout the Chicago area with Saturday hours and some evening hours. When a student first joins, he/she selects a personal physician from among the ANCHOR staff, as

well as the office location he/she thinks would be most convenient.

Normally, the central office located on the seventh floor of the Professional Building on the main campus will be most convenient. To aid students in their selection of a physician, a current list of participating physicians is available at the student financial affairs office or in any of the nine ANCHOR offices. As with Blue Cross, a booklet explaining in more detail the coverages and services available through ANCHOR is available from the Office of Student Financial Affairs.

The following tables reflect 1983-84 Blue Cross rates and 1984-85 ANCHOR rates. An increase in Blue Cross rates is expected for 1984-85.

Blue Cross

<u>Coverage</u>	Per Quarter (Including Summer)	
Single		\$ 73
Family		340
ANCHOR		
Per Quarter Rates		
<u>Coverage</u>	Enrolled	Not Enrolled
Single	\$ -0-	\$ 78
Couple	78	159
Family	189	267

FINANCIAL AID

Financial Assistance	34
Satisfactory Academic Progress	34
Financial Aid Awards	34
Scholarship and Loan Funds	35

Financial Assistance

The financial aid program has been established at Rush University to provide assistance to students who cannot afford to pay the full cost of education through their personal or family resources.

Financial need is the basic criterion for the awarding of funds by Rush University. Accordingly, students and their families will be expected to contribute toward educational expenses to the fullest extent possible. The level of the expected contributions is determined by using a standard set of criteria to analyze financial information provided by the students and their families. If the available resources fall short of meeting budgeted costs, the financial aid office will attempt to award sufficient financial aid to make up the difference.

In addition to the need-based funds, Rush University offers a low cost loan program, the Rush Tuition Loan, which is available to all students without regard to financial need. The Rush Tuition Loan program may be used by the student to replace a parent contribution or for educational costs experienced during the academic year. The maximum amount that can be borrowed each year is limited to the tuition level for the program of study. In order to qualify for the loan, the student must maintain at least half-time enrollment, be a degree seeking candidate, and must first attempt eligibility for a guaranteed student loan. Interest accrues on the Rush Tuition Loan program from the time of approval through repayment. The current interest rate of 8.5 percent may vary annually throughout the life of the loan. Repayment begins three months after cessation as a student, and the minimum monthly payment is \$25. Rush Medical College borrowers will have 13 years to repay the loan and all other University borrowers will have ten years to repay the loan.

Detailed information on financial aid and the application procedure is provided in the *Rush University Student Financial Aid Handbook* which is available in the Office of Student Financial Aid. The staff is available to consult with students and parents on all matters regarding the financing of a Rush University education. Students and parents are welcomed and encouraged to make use of these services.

Satisfactory Academic Progress

In order to receive financial assistance from federal Title IV aid programs (Guaranteed Student Loan, National Direct Student Loan, Supplemental Educational Grant, and College Work Study), the student must be making satisfactory academic progress. This federal requirement is contained in section 497(e) of the Higher Education Act of 1965, as amended, and is meant to ensure that only those students who make good progress toward their degree objectives continue to receive federal financial assistance.

Rush University's policy regarding satisfactory academic progress follows. This policy is distinct from the academic policies of each program published elsewhere in this bulletin.

The maximum length of time for a Rush University student to complete degree requirements will be the length of time normally required for a student continuously enrolled on a half-time basis to complete a specific program. Thus, students would not be eligible for federal assistance if enrolled for more than four years in a program that is normally completed in two years. Likewise, students would lose financial aid eligibility if enrolled for more than eight years in a program normally completed in four years. Students attending Rush University on a part-time basis must complete a minimum number of hours each year to determine eligibility for continued federal assistance. Further information on eligibility is available in the Office of Student Financial Aid.

Students enrolled as unclassified may only receive assistance through the Guaranteed Student Loan program.

Students who are denied financial assistance due to failure to make satisfactory academic progress may appeal to the director of their program. The director may reinstate the student's satisfactory academic standing by providing to the Office of Student Financial Aid a written statement explaining how the student will be making progress toward the degree.

Financial Aid Awards

After evaluating the personal and family resources available to the student, and taking into consideration awards from external sources, the Office of Student Financial Aid

will award funds under the control of the University to students who have remaining unmet need. In varying quantities, a financial aid award may include scholarships/grants, loans, and employment. In order to distribute the available funds in the most equitable manner, the Office of Student Financial Aid establishes a formula, which designates the sequence in which funds are awarded to students and the maximum amount awarded under each program. The formula provides for a certain amount of loans and sometimes employment before students are given consideration for scholarships. These formulas are applied consistently during any given year among all students at a given class level in a given college, as long as funds are available. Due to differences in the availability of funds from year to year and changes in eligibility requirements, the formulas are adjusted annually.

Scholarship and Loan Funds

Rush University is grateful to the donors of scholarship funds.

Broda O. Barnes, M.D.

Alexander Brunschwig, M.D.

Rush-Presbyterian-St. Luke's Medical Center
Nurses Alumni Association

Carlson-Luckhart

Esmark Foundation

Rush University Faculty Wives Association

Rush University Faculty Women's Association

Clark W. Finnerud, M.D.

Eunice Goebel Greeley

Florence D. Hagenah

Philip N. Jones, M.D.

George M. Katzman, M.D.

Laurel E. Keith, M.D.

John L. and Helen Kellogg Foundation

Earl Leimbacher, M.D.
Nalco Foundation
Pappageorge Memorial Scholarship
Robert Ryan, Jr., M.D.
Elizabeth Douglas Shorey
Emily Birnie Smith
Charles H. Solomon, M.D.
C. M. Swale
Rush-Presbyterian-St. Luke's Medical Center
Woman's Board
In addition, Rush University has loan funds available through resources provided by various donors.
Abbott Laboratories
Carl O. Almquist, M.D.
Aileen S. Andrew Foundation
M. Irene Cavanaugh
Charity Hospital Association
Episcopal Medical Student Loan
Henry H. Everett, M.D.
Donald W. Fergusson
George Guibor, M.D.
Illinois State Medical Society
John Jacques, M.D., and Lawrence
Jacques, M.D.
Grace M. Marshall Educational Foundation
Rush-Presbyterian-St. Luke's Medical Center
Medical Staff
Dr. David Monash
Anne M. and Paul J. Patchen, M.D., Loan
Frederick Henry Prince
Rush Medical College Alumni Association
Heyworth and Catherine Sanford
Simon M. Shubitz, M.D.
Searle Scholars Program
Jane Wheeler Warren
Vivian Weil
Rush-Presbyterian-St. Luke's Medical Center
Woman's Board

PROGRAMS OF STUDY

Rush Medical College	37
College of Nursing	45
Undergraduate Program	45
Graduate Program	51
College of Health Sciences	58
Academic Policies	58
Department of Related Health Programs	59
Section of Medical Technology ..	60
Section of Clinical Nutrition ..	63
Section of Medical Physics	65
Section of Occupational Therapy	68
Section of Speech and Hearing Sciences	74
Department of Health Systems	
Management	78
Department of Religion and Health	79
The Graduate College	81
General and Academic Information	81
Division of Anatomical Sciences	84
Division of Biochemistry	87
Division of Cell Biology	91
Division of Immunology	91
Division of Pharmacology	95
Division of Physiology	99
Division of Psychology	103

RUSH MEDICAL COLLEGE

Philosophy

The process of becoming a physician is unique for each student who enters Rush. Each brings to his/her medical school experience a distinct educational, psychological, and social background. As students define career goals, each develops personal ways of coping with the demands imposed by the physician's role. The Rush Medical College curriculum encourages pursuit of individual interests by emphasizing a solid foundation in the basic sciences and by offering a wide range of elective opportunities in the Medical Center and in a network of affiliated and associated hospitals. Throughout the program, students are encouraged to develop habits of self-education and enthusiasm for the lifelong study of medicine according to specific interests and objectives. Upon matriculation, students are assigned academic advisors whose primary responsibilities are to provide guidance and serve as resources for students as they define professional goals, select courses, and deal with a variety of issues during their progress through medical school.

Long after students have taken their last medical school examinations, the sense of responsibility for the welfare of one's patients remains the most important stimulus to maintaining the highest level of professional performance. The Rush faculty seeks to provide educational opportunities and to create an environment that will foster the ability to meet these responsibilities with competence and compassion.

Admission Requirements

Selection Process. Rush Medical College is strongly committed to the selection of individuals who will become vital members of the medical community as students, practitioners, educators, and researchers. Throughout the curriculum, emphasis is placed on the preparation of physicians who will function chiefly as medical practitioners and who will be committed to the delivery of quality health care to a variety of populations, including those that are now underserved.

Because Rush seeks to train physicians who will be committed to meeting society's health care needs, the committee seeks excellence in academic achievement and in noncognitive factors such as character, goals, personality,

accomplishments, and experience. High scholastic achievement is only a partial qualification for acceptance. The Committee on Admissions looks for individuals who exhibit social and intellectual maturity, personal integrity, motivation, and concern. Strong preference for admission is given to residents of Illinois.

Admission to Rush Medical College depends upon satisfactory completion of a minimum of 90 semester hours (135 quarter hours) of undergraduate study before matriculation.

Rush requires all entering students to have successfully completed at least two semesters of physics; two semesters of biology, with emphasis in zoology; two semesters of inorganic chemistry; and two semesters of organic chemistry. In lieu of two semesters of organic chemistry, students may take one semester of organic chemistry and one of biochemistry. Survey courses in the premedical sciences will not fulfill these requirements. Courses in mathematics, social sciences, and English are strongly recommended. The committee suggests that comprehensive courses be selected which include study in the following areas: biology—molecular, cellular, developmental, and population; inorganic chemistry—properties of the elements, states of matter, chemical reaction, and aqueous solutions; organic chemistry—stereochemistry, covalent bonding, hydrocarbons, and organic compounds; physics—mechanics, electricity, wave characteristics, thermodynamics, nuclear structure, and optics.

Because the required courses provide the foundation upon which modern biological and medical sciences are built, the committee gives special attention to competence in these areas. The committee requires that all of the course work submitted in fulfillment of specific admissions requirements must be evaluated on the basis of a traditional grading system. Such a system must employ a range of numbers or letters to indicate the comparative level of performance. If the applicant has received a grade of pass/credit for any courses on the required list, he/she must have the instructor supply, in writing, a statement evaluating the student's performance in that course. Applicants are advised to pursue subjects beyond the stated minimums if they have not done excellent work in the required courses.

Applicants who will have successfully completed three years of college consisting of a

minimum of 90 semester hours or 135 quarter hours, who have no baccalaureate degree but otherwise meet the requirements, will be considered.

Concurrent M.D./Ph.D. Program

Rush University offers students the opportunity for studies which lead to both M.D. and Ph.D. degrees. These programs are particularly suited for students who aspire to careers in academic medicine and research. They enable students to obtain intensive training in specialized areas of the medical sciences while completing their medical studies.

The curricula for students in a combined M.D./Ph.D. program vary widely depending on the individual's previous education, scope of scientific study, and personal interests. Students in concurrent programs must meet the full conditions and requirements of The Graduate College and Rush Medical College. However, course work leading to one degree may be acceptable as partial credit toward the formal requirements of the other degree. A properly coordinated program may afford a significant economy of time in completing studies toward both M.D. and Ph.D. degrees.

A student who enters Rush University with concurrent enrollment in a graduate program and the medical college will most typically complete two years of basic science components of the medical college curriculum before becoming fully involved with requirements of the graduate program. Upon completion of the requirements for the Ph.D. degree, the student will return for the clinical portion of the medical program. Alternatives to this schedule are possible to enable students to develop programs which will most effectively satisfy their career objectives.

Ph.D. programs are offered in The Graduate College of Rush University in the following areas: anatomical sciences, biochemistry, immunology, pharmacology, physiology, and psychology.

Curriculum

Organization. The four-year Rush curriculum provides an appropriate background for individuals with a diversity of professional career goals. The curriculum is based on establishing a solid foundation in the basic

sciences and clinical medicine through a core of required preclinical and clinical courses. In addition, there is ample elective time for students to pursue individual interests.

First Year—Regular Curriculum. The primary objective of the first year is to provide students with exposure to the vocabulary and the fundamental concepts upon which the clinical sciences are based. The first year is comprised of three quarters of basic science material organized on a disciplinary basis and emphasizing the structure, function, and behavior of the normal person. The following courses have been designated for each of the three quarters of the first year at the Medical Center.

Curriculum: First Year, Regular Curriculum

First Year		Hours*
Quarter I A—Fall		
ANA 471	Gross Anatomy I	100
ANA 451	Histology	82
BCH 471	Biochemistry I	43
PHY 451	Physiology I	60
	TOTAL	285
Quarter I B—Winter		
ANA 472	Gross Anatomy II	91
BHV 451	Fundamentals of Behavior	40
BCH 472	Biochemistry II	51
PHY 452	Physiology II	61
	TOTAL	243
Quarter I C—Spring		
BHV 453	Behavior in the Life Cycle	26
BCH 473	Biochemistry III	24
MIC 451	Microbiology Concepts	59
NEU 451	Neurobiology	78
PVM 451	Preventive Medicine	32
	TOTAL	219
TOTAL HOURS FIRST YEAR		747

*Subject to change.

Second Year—Regular Curriculum. During the second year, students are concerned with the study of the causes and effects of disease and with therapeutics. Students initiate their work with patients in programs which emphasize interviewing, history taking, and the physical examination.

Curriculum: Second Year, Regular Curriculum

Quarter II A—Fall		
Course		Hours*
PSY 501	Introduction to Psychopathology	33
IMM 501	Immunology	54
PTH 504	Pathology	64
PHR 501	Pharmacology I	53
MED 501	Clinical Pathophysiology I	62
CCS 501	Clinical Concepts and Skills	44
Total		310
Quarter II B—Winter		
Course		
BHV 543	Observation and Communication	20
MED 502	Clinical Pathophysiology II	87
CCS 501	Clinical Concepts and Skills	67
PTH 505	Pathology	58
PHR 502	Pharmacology II	37
Total		269
Quarter II C—Spring		
Course		
CCS 502	Clinical Concepts and Skills	12
MED 503	Clinical Pathophysiology III	66
PTH 506	Pathology	98
PHR 503	Pharmacology III	20
Total		196
TOTAL HOURS SECOND YEAR		775

*Subject to change.

Alternative Curriculum for the First and Second Years. Rush Medical College has established an innovative, preclinical program for 32 students in each entering class. This innovative alternative curriculum strives to give beginning medical students more experience with clinical problems, emphasizes personal responsibility for learning and fosters the development of interpersonal skills. The new program involves individual and group assignments, and uses elements of new information processing and computer technology.

The content for the two-year program will be equivalent to that offered in the regular curriculum, but the learning format will be quite different. Each student will be provided

with specially designed "learning guidebooks" for each unit in the curriculum. The guidebooks will outline the basic science content to be learned, illustrate relevant problem-solving approaches and contain appropriate reference material and learning exercises.

Students will be organized into study groups with eight students in each group. The group will meet formally twice a week for half a day with specially trained clinicians who will facilitate student analysis of clinical problems and guide the students in addressing other learning objectives of the small group sessions. The teaching program does not include formally scheduled lectures. However, faculty from each of the basic sciences will be available to answer questions and otherwise discuss the subject matter. Access to laboratories and tutorials for specific objectives in the preclinical curriculum is also included. Each group of eight students will have access to a microcomputer through the Office of Computer Based Education. Learning examinations will be provided for use at the student's discretion.

While the faculty believe that all students can benefit from this learning format, the program should be of special interest to students who prefer self-initiated, active responsibility for learning, profit from the give and take of many small group discussions, and enjoy problem solving. Students who elect to be part of the alternative curriculum will remain in the program for the first two years of medical school.

All students admitted to Rush Medical College will be eligible for participation in the alternative curriculum. Since the alternative program is limited to a total of 32 students, it is anticipated that not all interested students will be offered a position in the program. Failure to gain admission to the alternative program will in no way jeopardize a student's status in the regular curriculum. Students who wish to be considered for the program should apply after they have been accepted at Rush Medical College.

Third and Fourth Years. The curricula of the third and fourth years provide students with training in clinical skills, diagnosis, and patient management in a variety of patient care settings.

The clinical curriculum includes required core clerkships in family practice, medicine, neurology, pediatrics, psychiatry, obstetrics/gynecology, and surgery, requiring a total of 54 weeks. A total of 24 weeks of elective

study in areas of special interest to each student is also required.

With few exceptions, the required core clerkships are taken at Rush-Presbyterian-St. Luke's Medical Center, Christ Hospital, or Mount Sinai Hospital Medical Center. Twelve of the 24 weeks of required elective work must be carried out at Rush-Presbyterian-St. Luke's Medical Center or at one of the affiliated or associated hospitals within the Rush health care network. Up to 12 weeks of additional elective study may be carried out at other approved institutions.

Though scheduling of required core clerkships is somewhat flexible, students are encouraged to complete these clerkships early in order to make better use of elective options in the fourth year. Students participate in assignment of required core clerkships although the final decision concerning core and elective clerkship rotations rests with the Office of the Dean.

Academic Progression. Evaluation of progress at the medical college is an important part of the learning process. Course examinations developed and given by the faculty are aimed at allowing both the students and the faculty to assess progress toward defined learning goals. The final result of evaluation in course work is recorded as honors, pass, or fail. At the end of each quarter or clinical period, evaluations are submitted to the Office of the Dean and to the Committee on Student Evaluation and Promotion (COSEP).

The Committee on Student Evaluation and Promotion is a standing committee of Rush Medical College. The committee determines when students have satisfactorily completed requirements for promotion and may require additional study by students who have not satisfactorily completed aspects of the medical college curriculum. It also recommends candidates for the degree of doctor of medicine to the Faculty Council and accepts the responsibility of recommending to the Faculty Council the dismissal of any student whose academic performance is unacceptable in the judgment of the committee.

National Board of Medical Examiners (NBME) subtests are occasionally used by departments to evaluate course content. Scores from these examinations are kept confidential and are not available to any other institution or agency without written permission from the student. Students may review their complete academic record at anytime.

Rush utilizes a system of student anonymity for all written examinations. Performance in courses is known only to the student, his/her academic advisor, the course director for each course, and appropriate members of the Office of the Dean, provided that a minimum passing level of achievement has been demonstrated. Otherwise, the information is also presented to COSEP. Ratings by clinical instructors and, in most instances, oral and written examinations form the basis of evaluations of student performance in clerkships and therefore also the basis of recommendations for residencies. At the time of application for postgraduate training, a letter of evaluation is written by the Office of the Dean, with major contributions from the academic advisor. Prior to the composition of this letter, an individual conference is held with the student, and all pertinent factors for the letter of evaluation are assessed.

Academic Policies

(Additional policies are listed in the Academic Information section.)

Credit Hours. Rush University is on a quarter system. Each quarter is at least ten weeks in length. Rush Medical College assigns no credit hour value to its courses. Medical students are enrolled full time even when carrying a reduced course load. Additionally, the clinical portion of the curriculum deviates from the quarter system by specifying the dates and number of weeks of full-time study spent in each area.

Credit by Examination. A student who passes a proficiency examination at Rush University will earn academic credit toward the degree. Information that is posted on the transcript is the course prefix and number, title, and a K grade. A transcript guide that accompanies all transcripts issued by the Office of the Registrar explains that the K grade means credit was earned through proficiency examination.

Academic Difficulty. Students in Academic Difficulty. Course directors will, at the earliest possible time, notify the associate dean for medical student programs of the college of any students having academic difficulty. The Office of Medical Student Programs will work with such students and with course directors to clarify the nature of the problem and to seek appropriate solutions. Students in academic difficulty should establish contact

with the course director and appropriate member of the Office of the Dean to explore the factors relating to the student's academic difficulty.

Academic Probation. A student with significant academic deficiencies as determined by COSEP shall be considered on academic probation. Students placed on academic probation are thereby informed that there is serious concern about their academic performance and that they are subject to dismissal from the college should their unsatisfactory academic performance continue. Students shall be notified in writing why they have been placed on probation and what requirements must be met to be removed from probationary status. Students on probation may not register and receive credit toward the M.D. degree for courses (including clerkships) at other institutions without the consent of the Office of the Dean.

Automatic Probation. A student who has outstanding failures in courses scheduled for a total of 90 or more contact hours or a failure in a single required clerkship or who does not pass the National Board of Medical Examiners Part I Examination by November of the third year shall automatically be placed on academic probation.

Probation by COSEP. COSEP may place on academic probation any medical student who demonstrates deficiencies which COSEP, in the reasonable exercise of its discretion, determines to be significant.

Removal from Probation. A student shall remain on academic probation until he/she has made up all academic deficiencies and has met any other requirements established by COSEP for removal from probation.

Changes in Student Status. Scheduling First-Year Studies Over Two Years. Prior to the start of the spring quarter of the first year, a student may petition COSEP for permission to complete the requirements of the first year over a two-year period. A proposed schedule of courses, developed in consultation with a member of the Office of Medical Student Programs, will be presented to COSEP as part of the student's petition. COSEP shall decide upon such petition and advise the student in writing of its decision.

Leave of Absence. The dean will decide upon requests for leaves of absence and will determine the duration of the leave and the conditions, if any, for resuming status as a full- or part-time student. A student may not go on a leave of absence without first stating

in writing to the dean his/her intent to return to the college to complete the requirements for the M.D. degree.

The dean will consult with COSEP insofar as possible before approving a leave of absence for a student with academic deficiencies.

Withdrawal from the University. Withdrawal is the voluntary termination of enrollment by a student. A student who withdraws and subsequently seeks reinstatement must submit a written petition for reinstatement to the Committee on Admissions of the college, if withdrawal took place before the completion of the student's first quarter of enrollment. If the student withdrew subsequent to the first quarter of enrollment, the student must submit a written petition for reinstatement to COSEP.

A student who fails to register and enroll in courses according to the policies of the college will be considered to have withdrawn. A student withdrawing under this provision may submit a written petition for reinstatement to the dean. The dean shall determine whether special circumstances existed which justified the student's failure to register or whether the student's petition should be forwarded to the appropriate faculty committee as set forth in the above paragraph.

Suspension. Suspension is the administrative termination of the enrollment of a student for a specific period of time.

Dismissal. Dismissal is permanent administrative termination of the enrollment of a student.

Grounds for Dismissal. The following shall constitute grounds for academic dismissal from the college:

- Outstanding failures, in any combination, in the first or second years in courses whose total of scheduled instructional hours equals or is greater than 35 percent of the total scheduled instructional hours for the entire first or second year. (An outstanding failure is a failure which remains after a student has not passed a course's single make-up examination.)

- A second failure in a given required core clerkship.

- A failure in a second required core clerkship even though one may have previously been made up.

- Unsatisfactory completion of a remedial program by a student on academic probation where satisfactory completion of such program was a requirement for continued enrollment.

- Failure after three attempts to pass the Part I Examination of the National Board of Medical Examiners.
- A determination by COSEP that a student is not fit to practice medicine. Fitness for the practice of medicine includes demonstrated ability to be a competent and effective physician and performance which reflects good moral character, a sense of responsibility, sound judgment, and the ability to master and properly apply subject matter.

Procedure for Dismissal COSEP Action. COSEP shall review the performance of a student in accordance with these rules and, where appropriate, may recommend the dismissal of a student. The chairperson of COSEP shall notify the student who is subject to a COSEP recommendation for dismissal of COSEP's action and of the student's opportunity to meet with COSEP before it submits its recommendation to the Faculty Council. If the student fails to request a meeting with the COSEP within 14 days from his/her receipt of the chairperson's notice, the student shall have waived any right to such meeting. The chairperson of COSEP shall determine the procedures for conducting the meeting with the student and shall in his/her sole discretion determine whether any participant in the meeting may be represented by an attorney.

After meeting with the student, if such meeting is requested in a proper and timely manner, COSEP shall submit its recommendation in writing to the Faculty Council.

Faculty Council Action. Within a reasonable time following its receipt of COSEP's recommendation, the Faculty Council shall consider the recommendation. The vice chairperson of the council shall chair meetings of the council when the council is considering recommendations for the dismissal of a student and shall invite the student and the student's faculty advisor to attend the Faculty Council meeting during its consideration of the COSEP recommendation affecting the student. The Faculty Council may in its sole discretion conduct a part of its deliberations concerning such recommendation outside the presence of the student and his/her advisor. The vice chairperson of the Faculty Council shall determine the procedures for conducting its meeting with the student and shall in his/her sole discretion determine whether any participant in the meeting may be represented by an attorney. The Faculty Council shall submit its written recommendation together with COSEP's recommendation to the dean.

Dean's Action. The dean shall consider the recommendations of COSEP and the Faculty Council and shall make the final determination concerning the affected student's status in the college. The dean shall notify the student, COSEP, and the Faculty Council of his/her decision in the matter.

Examinations in a Course. The attainment of course goals by students should be evaluated by written examinations and/or other appropriate means. The course director will determine the number and format of examinations. Courses with more than 50 hours of scheduled instruction per quarter should include more than one examination or other evaluative exercise per quarter.

Examination Period. In the medical college, no classes are scheduled during the examination period; examinations in preclinical courses are scheduled by the assistant dean for preclinical curriculum.

Absences. Medical students missing examinations because of illness should contact their academic advisor in advance of the examination.

Incomplete Grades. The grade of incomplete (I) is normally given only when circumstances beyond the control of the student prevent completion of course requirements and the student has received permission to defer completion of these unmet course requirements. The course director shall determine what work will be required to remove the incomplete and shall establish a specific time within which the student must complete such work. Upon completion of the unmet course requirements this grade will be replaced by the new grade.

In-Course Make-up Examinations.

Excused Absences. Students with valid reasons may request permission to reschedule an examination. The decision to grant such permission will be made by the course director. A student denied permission may request the dean to review the denial. The dean's decision on the matter shall be final.

Unexcused Absences. A course director is not obligated to provide a make-up examination for an unexcused absence from an examination.

Make-up Examinations for Failed Courses in First and Second Years. A student receiving a failing grade at the completion of a course shall be given an opportunity to take a single make-up examination as a means of

demonstrating his/her proficiency in the subject and rectifying his/her failure. However, a student may take make-up examinations in no more than two courses in any one quarter. If more than two courses are failed, the student, in consultation with his/her academic advisor, may choose which examinations to take. Make-up exams will be completed no later than the first week of the quarter following a course failure. Format and content of make-up exams will be determined by the course director. Make-up examinations will be scheduled by the dean's office in consultation with the appropriate course directors.

Status of Students with Course Failures.

COSEP shall review the status of students who fail make-up examinations or who have outstanding course failures for which they did not qualify to take make-up examinations and shall consider options for remedial work.

At appropriate times during the academic year, as determined by the chairperson of COSEP in consultation with the associate dean for medical student programs, COSEP will review the progress of each student who has failed a course. After such review, COSEP shall establish requirements which a student must meet in order to resolve his/her deficiencies in academic performance or shall recommend dismissal.

No student shall be promoted from the second year to the third year until he/she satisfactorily completes all requirements of the first and second years. COSEP, in its discretion, may schedule second-year courses concurrently with make-up work for unsatisfactory first-year work, as it may consider appropriate for an individual student.

Remedial Programs for Students Failing Courses.

First and Second Years. COSEP shall establish requirements for remedial work for students with one or more outstanding course failures in the first or second year. Remedial work requirements shall be reasonably related to the seriousness of the student's deficiencies. Such requirements may include, but need not be limited to:

- Summer tutorial study with re-examination.
- Participation in an approved summer course.
- Retaking failed courses during the next academic year.

- Retaking all courses including those satisfactorily passed.

In developing requirements, COSEP will consider the needs of the individual student and will endeavor to develop a program which, if successfully completed, will strengthen the student's prospects for successfully completing the remainder of his/her college program. Students who have no outstanding failures at the end of an academic year, but who have had to take make-up examinations in courses whose total of scheduled instructional hours equals or exceeds 30 percent of the complete program of instruction for that entire academic year may be placed on academic probation, in which situation COSEP will establish the requirements which students must meet before they are able to proceed to the studies of the next academic year.

Third and Fourth Years. A failure in a required core clerkship must be made up in a manner prescribed by the course director consistent with the reasons for the student's failure. Should a student be required to repeat all or part of the clinical rotation, effort should be made to have the student work with different supervisory and instructional staff. A student failing an elective clerkship must either repeat the elective or, with the approval of the dean's office, complete an alternative elective.

Failure to Pass Part I of National Board of Medical Examiners. All students must take Part I of the NBME no later than September following the school year of their enrollment in the second-year curriculum. Students who do not pass NBME Part I by November of their third year will be placed on probation and reviewed by COSEP. After consultation with the student and his/her academic advisor, COSEP may require the student to defer part or all of his/her clinical program to provide sufficient time for preparation. Students who fail the examination three times will be subject to dismissal.

Graduation Requirements. The following are prerequisites to the granting of the degree of doctor of medicine by Rush University:

- The level of achievement required by the faculty for the degree of doctor of medicine must be attained in a minimum of 35 months.
- Credit toward the M.D. degree may be granted to a student by the Office of the

Dean for appropriate course work accomplished prior to matriculation at Rush Medical College.

- A minimum of 78 weeks of instruction at Rush Medical College is required for students entering at the third-year level from other medical schools. The Committee on Student Evaluation and Promotion may recommend additional quarters depending upon the progress made by the student following admission.
- Each student's progress in each year of the Rush Medical College curriculum will be evaluated by the Committee on Student Evaluation and Promotion, and additional study may be required in any year for students with academic difficulty.
- Students must pass all courses in the preclinical years before entering the clinical phase of the curriculum.
- Students are required to pass Part I and complete Part II of the examinations offered by the National Board of Medical Examiners prior to graduation.
- Students must pass all required clerkships and Part I of the examinations of the National Board of Medical Examiners before the date of commencement in order to participate in commencement ceremonies.

Academic Advisor Program

The Academic Advisor Program of Rush Medical College provides counseling and guidance for medical students in a manner that insures individual attention and continuity of contact between student and advisor. Each student is assigned an academic advisor and continues with the same academic advisor throughout his/her tenure at Rush Medical College.

Academic advisors are members of the faculty of Rush Medical College and each has responsibility for advising approximately 30

students. The assistant dean for academic counseling is responsible for program planning, coordination and evaluation.

Advisors are kept informed of current policies, procedures, and trends affecting students' participation in various programs of the medical school. They provide counseling in a number of areas, including course selection and scheduling, academic progress, and personal, educational and career development. Academic advisors assist each of their advisees in planning and implementing individual programs through each phase of undergraduate medical education.

Academic advisors are directly involved in the preparation of the dean's letters of evaluation, which represent a summation of the student's progress while in medical school and are utilized in the application process for post-graduate medical education programs.

Student Research Opportunities

Students are encouraged to have some research experience while they are in medical school. The opportunities range from laboratory experiences in the biomedical sciences to clinical investigation and field work in epidemiology, preventive medicine, and primary care. Such research can be carried out during summers or during time allotted for elective experiences. The dean's office provides a number of student fellowships to support such activities. A select group of students interested in pursuing careers in academic medicine is chosen each year to participate in a National Institutes of Health supported program for research training. The student's academic advisor and the Office of Medical Student Programs will assist in arranging for research experiences.

COLLEGE OF NURSING

Undergraduate Program

Philosophy

The College of Nursing embraces Rush University's commitment to freedom of inquiry, excellence in scholarship and service, and innovative leadership in the delivery of health care. This belief is reflected in standards developed through research endeavors, organizational design to help guide practitioners to conceptualize health care practice based on present and future needs of society, and the structure to integrate nursing practice, nursing education, and nursing research.

Nursing and other health disciplines at Rush University are approached as applied sciences with all the scientific rigor implied by this concept. The ability to work harmoniously and productively with members of the various health professions and to contribute constructively toward change in the provision of health services to society are integral components of each college's philosophy. The entire Rush enterprise shares a common belief that the University is designed to offer students the opportunity to achieve both breadth and depth in preparation for their careers in the health professions.

The Rush philosophy holds that nursing, as an applied science, builds on and expands concepts, theories, and models from related disciplines. Nursing is also an emerging scientific discipline with its science base evolving from the application and investigation of concepts and theories in the clinical practice of nursing. The developing science base and the expanding legal role of nurses require an increased level of individual and group accountability for the quality of services rendered.

Nursing at Rush is based on the belief that each individual is part of the human family with a potential for growth. Human development as a continuous process occurs within the context of interacting biological, social, and environmental systems. The degree of health or illness is determined by the responses of individuals, groups, and communities to these influences during the life process.

The faculty of the College of Nursing supports the view that the learner is an individual with a highly specific sociocultural background, diverse life experiences, and varied interests and values. Faculty members provide students

with a learning environment that enhances individual potential by encouraging inquiry and self-directed independent learning.

At the undergraduate level, the liberal arts education serves to broaden perspectives in relation to man in society and a humanistic approach to nursing care, and to foster an esthetic value for self-fulfillment. The biological and behavioral sciences offer a foundation for understanding the nursing process and for applying theory to practice. The professional education component, based on scientific principles, provides knowledge, promotes skills and encourages the development of attitudes essential to the functioning of the professional nurse as a generalist. All of these elements in the philosophy of the College of Nursing create a climate of learning for students to grow and develop as competent and professional nurses.

Objectives

The objectives of the undergraduate program in nursing are to provide educational experiences that will enable the student to:

- Function as a general practitioner with a commitment to continuous learning and the improvement of nursing care.
- Synthesize principles and concepts from the biological and behavioral sciences.
- Achieve comprehensive nursing goals.
- Apply principles of problem solving to assess, plan, implement, and evaluate preventive, therapeutic, and rehabilitative health care for individuals, families, and communities throughout the life cycle.
- Function collaboratively with the other members of the health team to provide continuity of care.
- Participate as a change agent within the health care delivery system, incorporating knowledge of social and political forces.
- Demonstrate commitment and accountability to health care consumers and to professional standards.
- Evaluate the applicability of research findings for clinical practice and explore areas for continued research.
- Engage in activities which promote professional development.

Admission

Students enter Rush at the junior level after completing the two-year prehealth curriculum at another accredited college or university. There are two options for admission. An individual either may attend one of 16 colleges and universities affiliated with Rush or another accredited institution.

- Students may attend an accredited college or university of their choice to complete the prehealth curriculum. While students from affiliated schools have priority in admission, these students comprise only approximately 25 percent of the entering class. All other spaces are filled by applicants from non-affiliated institutions.
- Students interested in attending an affiliated school are encouraged to submit applications to the affiliated colleges soon after the beginning of their senior year in high school. Each college has its own entrance requirements. The student's academic progress will be monitored by both Rush and the health careers advisor on the affiliated college campus. Students meeting the objectives of the prehealth curriculum, obtaining the approval of the health careers advisor and filing all required documents will move to Rush University to pursue the final two years of the program.

Required prehealth courses must be taken for a letter grade rather than pass/fail. Additionally, no transfer credit is awarded for required course work in which the student earned less than a C grade. The Test of English as a Foreign Language (TOEFL) is required of all applicants whose native language is not English. Finally, all candidates for admission must provide evidence of good physical and mental health.

For further information, contact the Office of College Admissions Services at 312-942-7100.

R.N. Completion. Rush University is committed to continuing education and to the facilitation of study in baccalaureate and graduate programs. Individual curriculum plans are formulated for each R.N. Interested registered nurses should contact the Office of College Admissions Services (312-942-7100) for information and referral to an advisor.

- Required courses. If hour designations are different from those indicated, students should submit a course content description. (Human anatomy and physiology courses taken more than five years prior to the date

of expected matriculation will not be applicable for meeting prehealth requirements. Chemistry and microbiology courses taken more than seven years prior to expected matriculation will not apply to meeting prehealth requirements.) Guidance in course selection is available through the admissions office at Rush.

Prehealth Curriculum

Course	Quarter Hours	Semester Hours
• Chemistry, Inorganic	5-6	4
• Chemistry, Organic	5-6	4
• Human Anatomy and Physiology	10-12	8
• Microbiology	5-6	4
• Statistics, Introductory	4	3
• Growth and Development	4-5	3
• Behavioral Sciences	13-14	9
• Academic Electives	43-38	25
TOTAL	90	60

Curriculum

At the College of Nursing, the program leading to the bachelor of science degree with a major in nursing requires successful completion of the prehealth curriculum and upper division study at Rush University.

Upon completion of the four-year program leading to the bachelor of science degree with a major in nursing, the graduate is eligible to take the licensure examination to become a registered professional nurse.

The goals of the program are to prepare the professional nurse with the knowledge base and intellectual flexibility to provide nursing care in a variety of current and emerging health care delivery systems and to interact with the individual, the family, the community, and other health professionals.

The development of nursing as an applied science begins with a foundation in the basic liberal arts and sciences to provide a base for the upper division nursing curriculum at the Rush campus. The basic behavioral and biological sciences taken the first two or three years at other schools are translated during the last two years into nursing practice in the psychomotor skills laboratory, classrooms, seminars, and clinical experiences.

A team effort, involving basic scientists, nurse-scientists, practitioner/teachers, and the student, guides the application of current

nursing knowledge and utilizes the freshest directions for change and the newest research findings. Throughout the curriculum the student is expected to become more and more self-directed and to concentrate on specific career goals through the selection of academic and clinical electives. Electives in the humanities are an integral part of the curriculum and complement the scientific and technical competencies required for professional practice.

The lifetime continuum of learning for nursing practice is acknowledged at Rush and enhanced by the availability of self-study resources and advanced studies in clinical nursing and nursing research.

Prehealth Curriculum. The prehealth portion of the undergraduate program requires two or three years of study, depending upon the college. These years are devoted to preparing the scientific foundation upon which the practice of nursing can be built. Courses in biological, physical, and behavioral sciences are required with options in the humanities.

Specific course offerings and requirements may vary from campus to campus due to curricular offerings, scheduling, and course content. The prehealth curriculum printed in the Admission section suggests the kinds of courses which are normally required before a student comes to the Rush campus.

Upper Division Curriculum. The upper division curriculum consists each quarter of a set of correlated required courses that function much as one course. A required, advanced course in either the biological or the behavioral sciences provides the core concepts for the set of courses.

Clinical nursing faculty presents related nursing concepts in the required seminar/practicum that accompanies the advanced course. In the practicum, students spend 9 to 24 hours weekly in clinical experiences planned to provide an opportunity for the practical application of nursing principles. Part of this clinical time is spent learning basic nursing skills and techniques related to the seminar content in specially equipped psychomotor skills laboratories. Teaching of these skills is provided by both practitioner/teachers and laboratory personnel in order to assure competent, safe patient care. When competency is gained, the skills are applied in a clinical setting.

Curriculum: Baccalaureate Nursing

Third Year		Quarter Hours
Fall Quarter		
NSG 301	Foundations of Nursing	4
NSG 311	Nursing Application I	8
	Elective	2
		14-16
Winter Quarter		
BIO 301	Advanced Biological Sciences I	4
NSG 312	Nursing Application II	8
PHR 303	Nursing Pharmacology I	2
		14
Spring Quarter		
BIO 302	Advanced Biological Sciences II	4
NSG 313	Nursing Application III	8
PHR 304	Nursing Pharmacology II	2
		14
Fourth Year		Quarter Hours
Fall Quarter		
BHV 402	Advanced Behavioral Science I	4
NSG 411	Nursing Application IV	9
NSG 382	Introduction to Nursing Research	2
		15
Winter Quarter		
BHV 403	Advanced Behavioral Science II	4
NSG 412	Nursing Application V	9
	Elective	2-3
		15-16
Spring Quarter		
NSG 401	Patient Care Management	4
NSG 413	Nursing Application VI	10
	Elective	2-3
	Subtotal	16
	Prehealth Curriculum	90
	Minimum Required for Graduation	90
		180

The scheme is followed for six quarters, with each nursing course assuming that students will achieve a progressively higher level of understanding and skill. Since courses may be offered only once each year, unsatisfactory

performance will result in a year's delay in progress. Hence, progression is contingent upon successful completion of each quarter in sequence. Each nursing student will be assigned to clinical experience in the areas of medical, gerontological, psychiatric, community, obstetrical, surgical, and pediatric nursing. During the community experience, students make home visits in surrounding neighborhoods. Clinical assignments and conferences aid students in learning the special care requirements of patients in each nursing area. Arrangements have been made with other agencies and institutions in the Chicago area so that students will have outstanding clinical training in a variety of care settings. Students may spend clinical time at Rush-affiliated hospitals and other institutions throughout the city. Transportation expenses will be borne by the student.

Advanced Placement. Any student who has completed the prehealth curriculum and has been accepted by the college may take the Advanced Placement (AP) Examination for the following advanced sciences courses:

Advanced Biological Sciences I
Advanced Biological Sciences II
Advanced Behavioral Sciences I
Advanced Behavioral Sciences II
Nursing Pharmacology I
Nursing Pharmacology II
Introduction to Nursing Research

Students successful in the Advanced Placement Examination earn academic credit toward the degree but this will not necessarily reduce the time required for graduation. The credit will equal the credit value of the course as listed in the current Rush University Bulletin. Information that is posted on the transcript is the course prefix and number, title, credit value, and a K grade. A transcript guide that accompanies all transcripts issued by the Office of the Registrar explains that the K grade means credit was earned through proficiency examination. Credit for the course will appear in the quarterly and cumulative totals as credit earned. The credit is not calculated into the student's grade point average (GPA).

In addition, registered nurses who have passed the advanced science course examination (AP) are eligible to take the AP examination in the respective nursing science course. For example:

- Examination in Biological Sciences 301-Advanced Biological Science I; then, if successful:

- Examination in Nursing 312-Nursing Application II.

The same sequential testing format will be followed for each quarter of work challenged. A candidate successful in these two examinations will receive credit for 12 or 13 quarter hours. Credit for up to 45 quarter hours may be granted in this manner. In order to receive the bachelor of science degree a minimum of 45 quarter hours of credit must be earned in academic residence at Rush University.

A clinical AP examination is offered each summer. Success on this examination exempts the R.N. student from the clinical practica associated with several courses.

For registered nurses who enroll in junior level clinical practica, psychomotor skills placement examinations are available. Students interested in taking the Advanced Placement Examination should contact the director of the undergraduate program for a schedule of dates and fees.

Full-time and Part-time Enrollment.

Undergraduate students must plan on full-time course work. (Registration for 12 quarter hours or more constitutes full-time enrollment.) The only exceptions are students who have received credit by examination for some of the required courses and registered nurses. Following are guidelines which will help in planning a part-time program.

- NSG 301 and NSG 311 are prerequisite to all other required nursing courses.
- BIO 301 is a prerequisite of BIO 302.
- NSG 312 is a prerequisite of NSG 313.
- BHV Science 402 is a prerequisite of BHV 403.
- NSG 411 is a prerequisite of NSG 412.
- All other core nursing courses must be completed prior to enrollment in NSG 401.
- NSG 413 is not available for AP and requires 24 hours per week of clinical experience.

Academic Policies

(Additional policies are listed in the Academic Information section.)

Academic Progression. The faculty reserves the right to request the withdrawal of any student whose conduct, physical or mental health, or performance demonstrates lack of fitness for continuance in a health profession. Any such student not voluntarily withdrawing will be dismissed from the University.

Since much of the work in nursing assumes that students will achieve a progressively higher level of understanding and skill, high academic performance is expected. The individual student is responsible for acquiring knowledge inside and outside of formal classroom and clinical settings.

Undergraduate students will be considered in good standing at Rush University unless placed on academic probation.

Academic probation is assigned to any student who receives a quarterly GPA below 2.0 ($A=4.0$) or whose cumulative GPA falls below 2.0. In addition, a cumulative GPA will be calculated for the following core and NAS sequences of courses every quarter.

- NSG 301, 401, 382; BIO 301, 302; BHV 402, 403; PHR 303, 304.
- NSG 311, 312, 313, 411, 412, 413.

Any student whose cumulative GPA falls below 2.0 in either of these sequences will be placed on academic probation. Students placed on probation must show improvement in academic standing in the quarter immediately following the quarter in which they were placed on academic probation. Academic probation is limited to a maximum of two quarters during the entire undergraduate program. Failure to demonstrate improvement in academic progress immediately after being placed on probation will result in dismissal from the University. Improvement in academic standing is defined as earning a minimum grade of C in all courses taken.

In order to be removed from probation, it is necessary to achieve and maintain a 2.0 GPA in the quarterly and cumulative averages and in the core and NAS sequences. Academic probation that extends longer than two quarters will result in dismissal from the University.

Undergraduate nursing students may not remain in the program if they receive a grade of F in any of the following courses: BHV 402, 403; BIO 301, 302; NSG 301, 311, 312, 313, 382, 401, 411, 412, 413; PHR 303, 304.

Repeating Courses. A course in which a grade of D is earned may be repeated only once. The hour and grade points of the second grade only will be counted in the cumulative grade point average.

Credit Hours. Rush University is on a quarter system. Each quarter is at least ten weeks in length. An examination period is provided at the end of each term and most

classes give a final examination during this time.

The quarter hour is the unit used by the College of Nursing, the College of Health Sciences and The Graduate College to determine credit for courses taken. As a general rule one quarter hour represents one lecture hour, two hours of small group discussion, or three laboratory or clinical hours per week.

Transfer of Credit. Undergraduate courses taken at an accredited college or university that fulfill the prerequisites for admission may be applied toward the baccalaureate degree. Elective credit required at Rush may be fulfilled by upper division courses taken at another institution. Upper division courses must be at the 300 or 400 level, or its equivalent, and academic in nature. Courses in physical education or applied arts, for instance, are not accepted. A transfer credit approval form should be completed.

Undergraduate Enrollment in Graduate Courses. With permission, undergraduate students may register for graduate level courses. Any credit earned in this manner will automatically apply toward the baccalaureate degree. Should any undergraduate student later apply for and gain admission to a graduate program at Rush University, the student may request that the graduate credit earned be applied toward the master's degree. A transfer credit approval form should be completed.

Credit will transfer in this manner only if the student has enough cumulative credits. A student must earn a minimum of 180 quarter hours to receive the bachelor of science degree. If a student actually earned 187 quarter hours, and seven quarter hours are at the graduate level at Rush, seven quarter hours could potentially be credited toward the master's degree.

Incomplete Grades. The grade of incomplete (I) is normally given only when circumstances beyond the control of the student prevent completion of course requirements and the student has received permission to defer completion of these unmet course requirements. The course director shall determine what work will be required to remove the incomplete and shall establish a specific time within which the student must complete such work.

An I grade does not reflect upon the quality of the student's performance, and upon

completion of the unmet course requirements this grade will be replaced by the new grade.

Students must contract with the instructor in order to receive an I grade. Students receiving a grade of I are responsible for finding out from the instructor the exact work required to remove the incomplete. Course work shall be completed by the end of the next quarter the student is enrolled, or sooner, at the discretion of the instructor and course director. An I grade not removed by the end of the quarter will revert to a failing (F or N) grade unless otherwise negotiated by the instructor and student.

Absences. Students are responsible for all material presented in class sessions. Faculty will not be available to students who miss or are late for classes. Students are expected to be in attendance at all seminar and clinical practice periods and are responsible for all content presented therein. When illness or other special circumstances prevent attendance, the student is responsible for contacting the instructor (in advance, if possible) to plan for meeting the objectives on an individual basis. Students absent from an examination are responsible for notifying the course director according to the guidelines specified in the course syllabus. Failure to do so will result in a zero for that examination or an incomplete for the course as determined by the course director.

Examination Policy. The examination policy is the responsibility of the individual course director who will inform students of examination requirements for that particular course. A period at the end of the quarter is provided for examinations. This period may be used as the course director chooses. The Office of the Registrar publishes the final examination schedule each quarter.

Dean's List. Undergraduate students earning a 3.5 or higher GPA for at least 12 credits of classroom course work are given recognition by having their names placed on the Dean's List. The Dean's List is published at the beginning of each new quarter for work completed in the previous quarter.

Leave of Absence. A student who must interrupt his/her studies for reasons of sustained ill health or compelling personal situations may apply for a leave of absence for a stated period of time, usually not to exceed one year. Leave of absence requests must be submitted in writing to the admissions and

progression committee. Nursing students must be in good academic standing to be considered for approval. If approved by the committee and the director of the undergraduate program, the student must satisfy the conditions of the leave before reentering and must comply with all policies, requirements, and course sequences in effect at the time of reentry. The student shall notify in writing the administrator(s) who granted the leave of his/her intent to return at least three months in advance of reenrollment.

Withdrawal from the University. Students planning to withdraw from the University voluntarily must complete a form available in the Office of the Registrar. The student will obtain several signatures and return all Medical Center materials, the identification card, and name pin. Withdrawal is final once all Medical Center bills have been paid and the completed form is submitted to the Office of the Registrar.

Readmission. Any student who has withdrawn from a program or has not been enrolled for two consecutive quarters or any dismissed student may apply for readmission by submitting an application for this purpose, with a fee of \$30, to the Office of College Admissions Services. An application for reenrollment must be received at least three months before the planned return. An applicant for readmission must have an interview with a member of the admissions and progression committee. A reentering student must meet the conditions for reenrollment stated in his/her dismissal or reentry acceptance letter and all policies, requirements, and course sequence in effect at the time of reentry. The student will pay tuition and fees at the rates in effect at the time of reenrollment.

A nursing student who received a failing grade in a course which resulted in dismissal must repeat the course upon reinstatement. The hour and grade points of the second grade only will be counted in the cumulative GPA, although both grades will appear on the transcript.

Graduation Requirements. The bachelor of science degree with a major in nursing requires a minimum of 180 quarter hours. At least 90 quarter hours are used to fulfill the prehealth curriculum. The remaining 90 quarter hours constitute the upper division curriculum of which at least eight quarter hours must be upper division electives.

A minimum of 45 quarter hours shall be spent as an upper division student in academic residence at Rush University. Credit earned through proficiency examination may not be used to meet this requirement.

Candidates for the B.S. degree must earn a 2.0 cumulative GPA in NSG 311, 312, 313, 411, 412, and 413. Candidates must also earn at least a 2.0 cumulative GPA in NSG 301, 401, 382; BIO 301, 302; BHV 402, 403; and PHR 303, 304. Finally, a 2.0 cumulative GPA must be earned in all computed upper division credits taken at Rush University.

Graduate Program

Graduate nursing education at Rush University is based on the belief that nursing is an applied science that focuses on the human life cycle and interacting systems in the environment. The master's program prepares the nurse for practice as a nurse clinical specialist or nurse practitioner and provides the basis for continued graduate study. The Dr. al program prepares the nurse for leadership in the advancement of the science of nursing.

A significant concept underlying the graduate curriculum is the view that human development is a dynamic, continuous process that occurs within a health-illness continuum. The nurse clinical specialist must be cognizant of the dynamic interrelationships among biological, psychological, sociological and environmental systems which influence perceptions of and responses to physiological and psychosocial health problems. Advances in clinical practice must be based on knowledge and understanding of the biological and behavioral sciences. Therefore, the curriculum includes courses in the behavioral and biological sciences, physical assessment, health systems, and clinical investigation in addition to the clinical courses. The clinical seminar and practicum, as well as independent study, focus on the student's area of specialization and provide the theoretical and clinical bases for practice as a clinical nurse specialist.

Graduate education provides for the development of intellectual inquisitiveness, analytical thinking, critical judgment, and a high degree of professional responsibility and accountability. Doctoral study affords the student the opportunity to combine cognate studies, field studies, research, and clinical practice to advance the body of knowledge in nursing, to make informed judgments, and to take appropriate action for managing clinical

During the fourth year, all students are expected to participate in comprehensive examinations which assist faculty in counseling students for licensure examination and are used for program evaluation. However, no minimum score is required.

Participation at commencement is expected of all graduates.

After receiving the baccalaureate degree, graduates are eligible to write the National Council Licensure Examination for Registered Nurses.

Educational Programs

problems, for developing health care policies, and for changing health care systems.

Educational Programs

The first phase of graduate study is clinical specialization (the master's level) with intensive study and examination of the biological and behavioral sciences as they are applied within the context of nursing practice, administration, education, and research. The clinical specialist has a broad understanding of the dynamic interrelationships among psychological, physiological, sociological, and environmental systems which influence perceptions of and responses to health problems and advances in clinical nursing practice. Successful completion of the requirements for the master's degree prepares the graduate to function as a clinical nurse specialist or nurse practitioner with beginning competence in the complementary areas of teaching, management, research, and consultation.

In the second phase of graduate study (the doctoral level) the student examines further the substantive areas of a clinical specialty and the current theories relevant to nursing practice, integrates knowledge from the behavioral and biological sciences, and develops research competence. The nurse who successfully completes the requirements for the doctor of nursing science degree (D.N.Sc.) can expand the general theoretical body of nursing knowledge and its applications to diverse and changing nursing problems. A graduate of the D.N.Sc. program will have developed the competencies of an expert clinician, the investigative skills of a nurse researcher, and the leadership skills needed to influence health care systems and develop health policy.

Objectives

The master's level of the curriculum is designed to prepare graduates to function as clinical nurse specialists or nurse practitioners. These roles require the central focus on clinical practice with a beginning level of knowledge and skill in education, research, administration, and consultation. Upon completion of the program, the student will be able to:

- Practice as a clinical nurse specialist or nurse practitioner in the specialty area of study.
- Analyze nursing theories in relation to clinical practice and to the larger scientific community.
- Use a theoretical framework to analyze and synthesize clinical data.
- Synthesize knowledge from the biological and behavioral sciences and apply the knowledge to clinical practice.
- Integrate a complementary role of teacher, manager, or researcher with the clinical practice.
- Analyze, evaluate, and apply research findings in the selected field of clinical practice.
- Utilize basic concepts and principles of learning and teaching with clients, peers, and/or students.
- Utilize basic concepts of leadership and management including knowledge of internal and external organizational influences on nursing practice.
- Analyze the nursing component of health care systems in the context of interacting social, economic, and political systems.
- Provide clinical consultation, utilizing knowledge and skills from clinical practice, education, and leadership.

In addition to meeting the objectives of the master's level of graduate study, the graduate of the Dr. al program will be able to:

- Plan, implement and evaluate changes in health care systems commensurate with current knowledge and future health needs of society.
- Design, conduct, and direct nursing research.
- Formulate nursing theories from a range of clinical investigations and contribute to the body of nursing science.
- Provide leadership essential to the advancement of nursing practice and nursing science.

Admission Requirements

Each applicant to the graduate nursing program should have earned a baccalaureate degree in nursing from a National League for Nursing (NLN) accredited program. Graduates from other than NLN-accredited programs and graduates who have earned a baccalaureate degree in a field other than nursing, who fulfill all other requirements for admission, must arrange to take placement examinations by contacting the Office of College Admissions Services. These examinations assist the faculty in evaluating nursing preparation. All work toward the baccalaureate degree must be at the university level, and the applicant must have completed an upper division major.

Both postbaccalaureate and post-master's applicants are considered for the doctoral program in nursing. Postbaccalaureate applicants accepted for doctoral study begin graduate study at the master's level, with the focus on clinical specialization. The student and the advisor plan the integrated program of study from the postbaccalaureate level through completion of the D.N.Sc. degree. Enrollment at the master's level does not guarantee admission/progression to the doctoral level. The student's continuation to doctoral level courses is contingent upon the recommendation of the advisor/program coordinator.

Each applicant to the graduate program must meet the following requirements:

- Provide evidence of good academic ability: 1) cumulative GPA and GPA in nursing major of 3.0 (A=4.0); 2) GPA of 3.5 (A=4.0) for master's level of study.
- Submit Graduate Record Examination (GRE) results.
- Document licensure as a professional nurse in at least one state.
- Submit recommendations from three individuals who know the applicant well. One recommendation must come from a past teacher and one from the applicant's most recent employer. For applicants to the doctoral program, at least one of the recommendations must be from an individual who holds an earned doctorate.
- Have an acceptable interview(s). All applicants must interview with the coordinator of their speciality program. In addition, applicants for doctoral study must have interviews with two additional doctoral faculty. The purpose of the interview is to ascertain the applicant's general knowledge of nursing, comprehension of selected field(s) of study,

ability to express ideas and opinions, and the compatibility of the program for the student's expressed goals.

- Successfully complete proficiency examinations in nursing as specified by the College of Nursing (for graduates of schools other than NLN-accredited baccalaureate programs in nursing).
- Successfully complete the Test of English as a Foreign Language (TOEFL), if English is not the applicant's native tongue.
- Obtain a passing grade in a statistics course (upper division preferred).

All materials of the application are taken into consideration when evaluating an applicant. Applicants are not necessarily excluded from or accepted into a program because of deficiencies or proficiencies in any one area.

Each student is assigned an advisor who helps the student define a program of study at the time of admission to the graduate program. The program of study is written and signed by the student and advisor and filed in the student's permanent program record (4 Scheppe-Sprague Hall).

The post-B.S.N. student (and the student admitted initially as a master's student who decides to continue for Dr. al study), after three quarters of full-time study, must be recommended for advancement to the Graduate Admissions, Progressions and Graduations Committee by the coordinator of the student's speciality area. Master's students who were not initially admitted for doctoral study may need an additional reference from a doctorally-prepared faculty member and additional interview(s).

The Graduate Admissions, Progressions and Graduations Committee of the College of Nursing will select for doctoral study those qualified applicants whose professional goals

and educational objectives can best be met by the resources of Rush University. The chairperson of the Graduate Admissions, Progressions and Graduations Committee of the College of Nursing will notify the applicant of his/her admission to the graduate program. The director of the graduate program will provide the student with the name of his/her advisor.

Curriculum

Programs leading to the master of science degree with a major in nursing provide the opportunity for clinical specialization in anesthesia nursing, community health nursing, gerontological nursing, medical/surgical nursing (critical care and chronic), oncological nursing, parent/child health nursing and psychiatric/mental health nursing.

The master of science degree with a major in nursing requires completion of a minimum of 55 quarter hours of credit (four quarters of full-time study or 8-10 quarters of part-time study), exclusive of prerequisites. Programs preparing the nurse practitioner require an additional period of study.

Required course work encompasses concepts of health care delivery, behavioral sciences, biological sciences and clinical investigation. Seminar-practicum courses provide individual and group focus on the student's area of clinical specialization. In most of the practica, the student may choose both the practice area and the setting if faculty preceptors in the student's area of specialization and in the preferred setting are available. A thesis and/or additional course work in complementary areas, such as teaching, research, or administration, are optional.

Curriculum: Graduate Program

Content Category	Master's Level	Doctoral Level
SCIENCE		
Behavioral Science	4	Additional as appropriate to
Biological Science	4-10	program of study
RESEARCH		
Clinical Investigation	4	Advanced Statistics
Thesis (optional)	variable	Methods & Design
HEALTH CARE SYSTEMS	2	Research Seminar
		Independent Study
NURSING		
Concepts, Theories, Models	2	Philosophy of Science
Specialty Seminar/Practicum	18-27*	Theory Development
Physical Assessment	4	Clinical Practicum
Additional Specialty Content	0-14*	Clinical Seminar
ELECTIVES	variable	variable
		Minor (optional)
LEVEL TOTAL	55*	LEVEL TOTAL
		over 70*

*Specific courses and/or additional quarter hours are required by certain programs of study.

A master's degree is not granted for the first year of doctoral study in midwifery.

**Minimum number of credits recommended.

The doctoral student in nursing examines the substantive areas of a clinical specialty, a nursing diagnostic category, an observed phenomenon, or a concept; explores theories of relevance to nursing; integrates knowledge from the behavioral and biological sciences; and develops research competence. The nurse who completes the D.N.Sc. program will be able to extend the theory and practice of nursing to diverse and changing nursing problems.

Doctoral study in nursing at Rush University emphasizes nursing as an applied science which considers the life cycle of man and the interacting systems in man's environment. The doctoral student and his/her major advisor mutually define an individual program which includes an area of clinical nursing for specialization and investigation. The program will enable the graduate to have the competencies of an expert clinician, the investigative skills of a nurse-researcher, and the leadership skills needed for developing health care systems.

Course requirements vary from program to program. The college reserves the right to modify course requirements in consideration of overall curriculum goals and design. At least 55 quarter hours of graduate credit are required for the M.Sc. degree. At least 125 quarter hours of graduate study (postbac-

calaureate), exclusive of dissertation, are required for the D.N.Sc. degree. The doctoral student choosing the midwifery specialization as a postbaccalaureate student will not be awarded a master's degree during his/her course of study.

For the postbaccalaureate student the entire doctoral program must be completed within a ten-year period. For those students having an interrupted program of study (admitted or readmitted to Rush University following the master's program), the requirements for the doctoral degree must be met within a five-year period.

Academic Policies

(Additional policies are listed in the Academic Information section.)

Academic Progression. The faculty reserves the right to request the withdrawal of any student whose conduct, physical or mental health, or performance demonstrates lack of fitness for continuance in a health profession. Any such student not voluntarily withdrawing will be dismissed from the University.

Students in all graduate programs must maintain a cumulative 3.0 average in order to remain in good academic standing. A full-time student whose cumulative GPA falls below 3.0 may enroll for one quarter as a probationary

student to attempt to raise his/her cumulative GPA. A part-time student is placed on academic probationary status for a period of time specified by the Graduate Admissions, Progressions and Graduations Committee. Further enrollment in the graduate program will be denied if the GPA is not raised in the quarter(s) of probationary status.

A student must achieve an A or B grade in all required clinical nursing courses. If less than a B grade is achieved, a student may repeat the one course only with the approval of the Graduate Admissions, Progressions and Graduations Committee, the student's advisor, and the graduate program coordinator. An F grade in a required clinical nursing course will result in dismissal from the program.

For all other courses, a graduate student must achieve an A, B, C or pass grade. No more than two grades of C are allowed in courses other than the required clinical nursing courses. The receipt of a third C will result in dismissal from the program. If readmitted to the program, a student must repeat the course in which the third C grade was earned. Doctoral students who do not receive a B or pass grade in any course at Rush University or an approved course at another institution will have their progression reviewed by the Graduate Admissions, Progressions and Graduations Committee.

Certain required behavioral and biological science courses are prerequisite to or concurrent with clinical nursing courses. These courses are specific to the clinical area of study.

Nursing courses numbered 501, 511, 512, 513, 514, and 515 must be taken in sequence when these courses are part of a student's major program.

Changing Programs. Changing the major within the graduate programs requires written consent of both program coordinators and the director of graduate programs. Permission will be considered based upon available clinical preceptors. All transfers become effective at the beginning of the next academic quarter.

Part-time Enrollment. Graduate students may enroll for courses on a part-time basis. All prerequisites for a specific course must be met before admission to the course. Part-time master's students must complete degree requirements within five years (60 months). For the postbaccalaureate student the entire doctoral program must be completed within a ten-year period. For those students having an

interrupted program of study (admitted or readmitted following the master's program) the requirements for the doctoral degree must be met within a 60-month period.

Graduation Requirements. The M.Sc. degree with a major in nursing requires a minimum of 55 quarter hours with the exception of the following clinical specialities: the anesthesia nurse practitioner program which requires 62 quarter hours and a 52-week residency; community health nursing, which requires 65 (minimum) quarter hours plus a two-quarter residency; and the gerontological nurse practitioner program which requires 58 quarter hours.

The doctoral student and his/her academic advisor define a program of study. The program of study is written and signed by the student and the advisor and filed with the director of the graduate program by the end of the first quarter of doctoral study. In no instance may the course work be less than the equivalent of 125 quarter hours of graduate credit (postbaccalaureate).

A maximum of 20 percent of graduate level course work may be taken pass/no pass.

Credit Hours. Rush University is on a quarter system. Each quarter is at least ten weeks in length. An examination period is provided at the end of each term and most classes give a final examination during this time.

The quarter hour is the unit used by the College of Nursing, the College of Health Sciences, and The Graduate College to determine credit for courses taken. As a general rule one quarter hour represents one lecture hour, one hour of small group discussion, or three laboratory or clinical hours per week.

Transfer of Credit. Graduate credit earned elsewhere may be applied to the M.Sc. and D.N.Sc. degree requirements for Rush, subject to the approval of the advisor. Credit in excess of nine quarter hours requires approval of the director of the graduate program. Graduate level courses taken at a recognized college or university may be applied to the D.N.Sc. degree requirements at Rush, subject to the approval of the academic advisor. Credits in excess of 55 quarter hours require approval of the director of the graduate program. Before this credit may be approved to meet degree requirements, a transfer credit approval form must be completed. The form should be completed during the first quarter of enrollment in the degree program.

After matriculation, students who plan to take courses off campus must either complete a transfer credit approval form or register for concurrent enrollment. Information regarding either of these options is available in the Office of the Registrar.

Credit by Examination. A student who passes a proficiency examination at Rush University will earn academic credit toward the degree. The credit will equal the credit value of the course as listed in the current *Rush University Bulletin*. Information that is posted on the transcript is the course prefix and number, title, credit value, and a K grade. A transcript guide that accompanies all transcripts issued by the Office of the Registrar explains that the K grade means credit was earned through proficiency examination. Credit for the course will appear in the quarterly and cumulative totals as credit earned. The credit is not calculated into the student's GPA. A fee for the examination is assessed based on the number of credits assigned to the course.

Residence Requirements. The graduate student must be enrolled at Rush University for the equivalent of three quarters of full-time graduate study.

Absences. Students are responsible for all material presented in class sessions. Faculty will not be available to students who miss or are late for classes. Students are expected to be in attendance at all seminar and clinical practice periods and are responsible for all content presented therein. When illness or other special circumstances prevent attendance, the student is responsible for contacting the instructor (in advance, if possible) to plan for meeting the objectives on an individual basis. Students absent from an examination are responsible for notifying the course director according to the guidelines specified in the course syllabus. Failure to do so will result in a zero for that examination or an incomplete for the course as determined by the course director.

Examination Policy. The examination policy is the responsibility of the individual course director who will inform students of examination requirements for that particular course. A period at the end of the quarter is provided for examinations. This period may be used as the course director chooses. The Office of the Registrar publishes the final examination schedule each quarter.

Incomplete Grades. The grade of incomplete (I) is normally given only when circumstances beyond the control of the student prevent completion of course requirements and the student has received permission to defer completion of these unmet course requirements. The course director shall determine what work will be required to remove the incomplete and shall establish a specific time within which the student must complete such work.

An I grade does not reflect upon the quality of the student's performance, and, upon completion of the unmet course requirements, this grade will be replaced by the new grade.

Graduate students may request an incomplete from a course director. If the course director grants the privilege of an incomplete, the I grade must be removed as contracted by the course director and the student. The I grade must be removed by the end of the next quarter or it will revert to a failing (F or N) grade unless otherwise negotiated by the course director and student.

A student receiving an I grade may proceed for one quarter; however, further continuation is contingent upon the final grade received for the course.

Any exception to these policies for the College of Nursing requires permission from the student's academic advisor and the director of the graduate program. A memo to the registrar signed by both of the above individuals must be presented at the time of registration when the exception is to be granted.

Leave of Absence. A student who must interrupt his/her studies for reasons of sustained ill health or compelling personal situations may apply for a leave of absence for a stated period of time, usually not to exceed one year. Leave of absence requests must be submitted in writing to the Graduate Admissions, Progressions and Graduations Committee. Doctoral students who must interrupt study must consult with their academic advisor and submit a revised program of study to the Graduate Admissions, Progressions and Graduations Committee. Nursing students must be in good academic standing to be considered for approval. If approved by the committee and the director of graduate programs, the student must satisfy the conditions of the leave before reentering and must comply with all policies, requirements, and course sequences in effect at the time of reentry. The student shall notify, in writing, his/her advisor and the Graduate Admissions, Progres-

sions and Graduations Committee of his/her intent to return at least three months in advance of reenrollment.

Withdrawal from the University. Students planning to withdraw from the University voluntarily must complete a form available in the Office of the Registrar. The student will obtain several signatures and return all Medical Center materials, the identification card, and name pin. Withdrawal is final once all Medical Center bills have been paid and the completed form is submitted to the Office of the Registrar.

Readmission. Any student who has withdrawn from a program or has not been enrolled for two consecutive quarters or any dismissed student may apply for readmission by submitting an application for this purpose

with a fee of \$30 to the office of admissions. Applications for reenrollment must be received at least three months before the planned return. An interview may be required. A reentering student must meet the conditions for reenrollment stated in his/her dismissal or reentry acceptance letter and all policies, requirements, and course sequence in effect at the time of reentry. The student will pay tuition and fees at the rates in effect at the time of reenrollment.

Nursing students who received an unacceptable grade in courses which resulted in dismissal must repeat the course upon their reinstatement. The hour and grade points of the second grade only will be counted in the cumulative GPA.

COLLEGE OF HEALTH SCIENCES

Academic Policies

(Additional policies are listed in the Academic Information section and in the program descriptions.)

Credit Hours. Rush University is on a quarter system. Each quarter is at least ten weeks in length. An examination period is provided at the end of each term and most classes give a final examination during this time.

The quarter hour is the unit used by the College of Nursing, the College of Health Sciences, and The Graduate College to determine credit for courses taken. As a general rule one quarter hour represents one lecture hour, two hours of small group discussion or three laboratory or clinical hours per week.

Transfer of Credit. Undergraduate courses taken at an accredited college or university that fulfill the prerequisites for admission may be applied toward the baccalaureate degree.

Graduate credit earned elsewhere may be applied to the master of science degree requirements for Rush, subject to the approval of the program director. Before this credit may be approved to meet degree requirements, a transfer credit approval form must be completed. The form should be completed during the first quarter of enrollment in the degree program.

After matriculation, students who plan to take courses off campus must either complete a transfer credit approval form or register for concurrent enrollment. Information regarding either of these options is available in the Office of the Registrar.

Credit by Examination. A student who passes a proficiency examination at Rush University will earn academic credit toward the degree. The credit will equal the credit value of the course as listed in the current *Rush University Bulletin*. Information that is posted on the transcript is the course prefix and number, title, credit value, and a K grade. A transcript guide that accompanies all transcripts issued by the Office of the Registrar explains that the K grade means credit was earned through proficiency examination. Credit for the course will appear in the quarterly and cumulative totals as credit earned. The credit is not calculated into the student's grade point average (GPA).

Full-time and Part-time Enrollment.

Twelve quarter hours is considered full-time enrollment. Registration for fewer than 12 hours constitutes part-time enrollment.

Undergraduate Enrollment in Graduate Courses.

With permission, undergraduate students may register for graduate level courses. Any credit earned in this manner will automatically apply toward the baccalaureate degree. Should an undergraduate student later apply for and gain admission to a graduate program at Rush University, the student may request that the graduate credit earned be applied toward the master's degree. A transfer credit approval form should be completed.

Credit will transfer in this manner only if the student has enough cumulative credits. A student must earn a minimum of 180 quarter hours to receive the bachelor of science degree. If a student actually earns 187 quarter hours, and seven quarter hours are at the graduate level at Rush, seven quarter hours could potentially be credited toward the master's degree.

Incomplete Grades. The grade of incomplete (I) is normally given only when circumstances beyond the control of the student prevent completion of course requirements and the student has received permission to defer completion of these unmet course requirements. The course director shall determine what work will be required to remove the incomplete and shall establish a specific time within which the student must complete such work.

An incomplete grade does not reflect upon the quality of the student's performance, and upon completion of the unmet course requirements, this grade will be replaced by the new grade.

Medical Technology. Students receiving grades of I are responsible for finding out from the instructor the exact work required to remove the incomplete. In the case of a required course, work ordinarily shall be completed and a letter grade received by the end of the fifth week of the next quarter the student is enrolled, or sooner at the discretion of the instructor and course director. A grade of incomplete in an elective course will automatically revert to a failing grade unless a change of grade is received by the registrar within one calendar year.

Graduate Students. Graduate students may request an incomplete from the course director. An I grade not removed by the end of the next quarter will revert to a final grade as determined by the course director.

Absences. Students are responsible for all material presented in class sessions. Faculty members are not obligated for extra help to students who miss or are late for classes. When illness or other special circumstances prevent attendance, the student is responsible for contacting the instructor (in advance, if possible) to plan for meeting the objectives on an individual basis. Students absent from an examination are responsible for notifying the course director according to the guidelines specified in the course syllabus. Failure to do so will result in a zero for that examination or an incomplete for the course as determined by the course director.

Examination Policy. The examination policy is the responsibility of the individual course director who will inform students of examination requirements for that particular course. A period at the end of the quarter is provided for examinations. This period may be used as the course director chooses. The Office of the Registrar publishes the final examination schedule each quarter.

Dean's List. Undergraduate students earning a 3.5 (A=4.0) or higher GPA for at least 12 credits of classroom course work are given recognition by having their names placed on the Dean's List. The Dean's List is published at the beginning of each new quarter for work completed in the previous quarter.

Leave of Absence. A student who must interrupt his/her studies for reasons of sustained ill health or compelling personal situations may apply for a leave of absence for a stated period of time, usually not to exceed

one year. Leave of absence requests must be submitted in writing to the department chairperson or his/her designate. If approved by the department chairperson and dean, the student must satisfy the conditions of the leave before reentering and must comply with all policies, requirements, and course sequences in effect at the time of reentry. The student shall provide, to the administrator(s) who granted the leave, written notice of his/her intent to return. The student will pay tuition and fees at the rate in effect at the time of reenrollment.

Withdrawal from the University. Students planning to withdraw from the University voluntarily must complete a form available in the Office of the Registrar. The student will obtain several signatures and return all Medical Center materials, the identification card, and name pin. Withdrawal is final once all Medical Center bills have been paid and the completed form is submitted to the Office of the Registrar.

Readmission. Any student who has withdrawn from a program or has not been enrolled for two consecutive quarters or any dismissed student may apply for readmission by submitting an application for this purpose with a fee of \$30 to the program director of the program in question. Applications for reenrollment must be received at least three months before the planned return. An interview may be required. A reentering student must meet the conditions for reenrollment stated in his/her dismissal or reentry acceptance letter and all policies, requirements, and course sequence in effect at the time of reentry. The student will pay tuition and fees at the rates in effect at the time of reenrollment.

Department of Related Health Programs

The Department of Related Health programs consists of the following academic units: Section of Clinical Nutrition, Section of Medical Physics, Section of Medical Technology, Section of Occupational Therapy, and Section of Speech and Hearing Sciences.

Through these units, the department offers seven degree programs: the bachelor of science

with a major in medical technology, and the master of science with majors in clinical nutrition, occupational therapy (entry and advanced), speech-language pathology, audiology, and medical physics.

The faculties of these programs are actively involved in research activities and provide direct patient care and hospital support services.

Section of Medical Technology

Philosophy

The contribution of medical technology to the patient and to the health care delivery system is primarily one of diagnostic services. As clinical medicine expands in the variety and number of diagnostic tests performed and as new methodologies and instruments become increasingly sophisticated, there is a crucial need for more high quality professionals—not merely more technologists. Today's professional technologists must develop technical expertise and also teaching and administrative competence as well. They must be able to adapt to rapid changes in the field while maintaining an optimal level of performance. As members of the health care team, medical technologists must have a basic understanding of the role of other health care practitioners in order to function effectively and bring the best possible care to the individual and the community. Although the work in medical technology often does not place the practitioner in actual physical proximity to the patient, the technologist, nevertheless, must maintain a high degree of compassion and empathy and a constant awareness that the welfare of the patient is the ultimate goal.

It is the aim of the baccalaureate program in medical technology to educate technologists to meet the changing needs of laboratory medicine more effectively and with greater efficiency.

Admission Requirements

Students wishing to apply to the medical technology program may do so in one of two ways.

- Affiliated college applicants are students who have enrolled in any of the colleges affiliated with Rush. Of the 16 affiliated colleges of Rush University, the following offer preparation for medical technology:

Beloit College, Beloit, Wisconsin

Colorado College, Colorado Springs, Colorado

Cornell College, Mt. Vernon, Iowa
Fisk University, Nashville, Tennessee
Grinnell College, Grinnell, Iowa

Illinois Institute of Technology, Chicago, Illinois
Knox College, Galesburg, Illinois
Lake Forest College, Lake Forest, Illinois
Lawrence University, Appleton, Wisconsin
Macalester College, St. Paul, Minnesota
Monmouth College, Monmouth, Illinois
Ripon College, Ripon, Wisconsin

Students apply to the affiliated college of their choice and complete the two-year preprofessional program before being admitted to Rush for the two-year professional program. Students are recommended for admission to the Rush program by their health careers advisor at the affiliated college.

- Other applicants are students who have completed (or are completing) the preprofessional requirements at an accredited college or university other than the affiliated institutions listed above. These applicants should apply to the medical technology program by March for admission in the fall.

Curriculum

Preprofessional Program. The prehealth portion of the medical technology program is taken at an affiliated college or other accredited college or university and requires two or three years of study, depending upon the college. These years are devoted to preparing the scientific foundation upon which the practice of medical technology can be built. The first year emphasizes courses in biological, physical, and behavioral sciences, with options in the humanities. The succeeding prehealth years are used to increase depth in the sciences as they relate more specifically to health fields and to enhance personal experience by a broad choice of electives in the humanities.

Specific course offerings and requirements may vary from campus to campus due to curriculum offerings, scheduling, and course content. The following listing suggests the kinds of courses that normally are required before a student comes to the Rush campus.

Preprofessional Program

Courses	Quarter Hours	Semester Hours
Chemistry (including Organic and Quantitative Analysis)	24	16
Biology (including Microbiology)	18	12
Statistics	4	3
Academic Electives	44	29
TOTAL	90	60

Professional Program. In the junior and senior years the student integrates the theory of clinical medicine with the practice of clinical laboratory procedures, learning basic theory and skills in hematology, clinical chemistry, immunology, and clinical microbiology in the junior year, going on to more advanced courses in those areas in the senior year. Senior students apply basic concepts as they rotate through the laboratories of Presbyterian-St. Luke's Hospital and affiliated hospitals. In addition, students are prepared to fill supervisory and teaching positions through courses in management.

Curriculum: Professional Program*

Junior Year			Senior Year		
Fall Quarter			Fall Quarter		
BCH	411 Clinical Chemistry I	4	IMM	402 Clinical Immunology	2
MTK	304 Basic Laboratory Skills	7	MTK	421 Practicum in Clinical Chemistry	8
HEM	301 Hematology I	5	MTK	423 Practicum in Immunology	4
		<u>16</u>	HSM	301 Health Care Management	<u>3</u>
					<u>17</u>
Winter Quarter			Winter Quarter		
MIC	311 Diagnostic Bacteriology	5	MTK	422 Practicum in Hematology	8
BCH	412 Clinical Chemistry II	4	MTK	425 Practicum in Immunohematology	4
MTK	303 Body Fluid Analysis	5	HEM	425 Hematology II	2
IMM	301 Basic Immunology	<u>3</u>			
		<u>17</u>			<u>14</u>
Spring Quarter			Spring Quarter		
MIC	411 Parasitology, Mycology & Virology	5	BCH	413 Clinical Chemistry III	3
IMM	403 Clinical Serology	3	MTK	441 Seminar in Medical Technology	2
IMM	431 Immunohematology	5	HEM	426 Hematology III	2
		<u>13</u>	MTK	424 Practicum in Microbiology	<u>8</u>
					<u>15</u>

*Courses may not always be offered in sequence listed.
All courses are required courses.

Academic Progression. The faculty reserves the right to request the withdrawal of any student whose conduct, health, or performance demonstrates lack of fitness for continuance in a health profession. Any such student not voluntarily withdrawing will be dismissed from the University.

High academic performance in required courses is expected. Undergraduate students will be considered in good standing at Rush University unless placed on academic probation.

Academic probation is assigned to any student who earns a quarterly grade point average below 2.0 (A=4.0) or whose cumulative grade point average falls below 2.0. Students placed on probation have two quarters in which to regain the status of good standing. Failure to do so will result in dismissal from the University. Medical technology students may receive no more than one D in the following courses each year to remain in the program:

BCH 411,412,413
IMM 301, 402, 403, 431
MIC 311,411
HEM 301,425,426
MTK 303, 304

An F grade in any of these courses will result in dismissal.

Each student in the medical technology program must pass a departmental comprehensive examination following the third year of study. This examination covers all material presented in the third-year curriculum. Students failing this examination will not be allowed to continue to the fourth year of the program when the practicum courses are offered. A failing mark on the departmental comprehensive examination given at the end of the third year of the program results in dismissal from the program regardless of previous grades earned.

In the fourth year of the program work in practicum courses must be at the C level or better. Any work in practicum courses below the level required for a C grade will result in an F grade. Courses in which an F grade is received may be repeated only once with the new grade replacing the F in the cumulative GPA. A second grade of F in a practicum course will result in dismissal. Any student who needs to repeat a practicum course must do so within one year.

Academic Policies

(Additional policies are listed in the College of Health Sciences and in the Academic Information sections.)

Full-time Enrollment. The medical technology professional program requires full-time enrollment from September to June.

Certification. The comprehensive technical curriculum at Rush University prepares the student to enter the practice of medical technology. Each graduate is eligible to take the National Certifying Examination given by the American Society of Clinical Pathologists, and upon passing the examination he/she becomes certified as a medical technologist, MT(ASCP). Graduates are eligible to take any of the other national certifying examinations if they so desire.

Graduation Requirements. The bachelor of science degree with a major in medical technology requires a minimum of 180 quarter hours. This includes at least 90 quarter hours earned as a lower division student at an affiliated school or before entrance as a transfer student. A minimum of 45 quarter hours of academic credit shall be earned as an upper division student in academic residence at Rush University.

Candidates for the bachelor of science degree must earn a 2.0 cumulative grade point average in all computed upper division credits taken at Rush University.

Participation in cap and gown at commencement exercises is expected of all graduates.

Educational Activities. The faculty of the section is responsible for providing both the didactic course work and the clinical experiences necessary for students to complete successfully all degree requirements for the bachelor of science with a major in medical technology. The program is accredited by the American Medical Association's Committee on Allied Health Education and Accreditation (CAHEA).

Research Activities

Faculty members of the Section of Medical Technology engage in research either technical or educational in nature. Areas include biochemistry, education, hematology, hospital administration, immunohematology, immunology, and microbiology.

The Section of Medical Technology supports and is involved in the administration of the Research and Teaching Laboratory of the Department of Rel. Hlth. Prg. The primary function of the laboratory is to provide research facilities and equipment in support of faculty and student research projects.

Service Activities

Faculty members are actively involved in the clinical laboratories of Rush-Presbyterian-St. Luke's Medical Center, maintaining active research, supervisory, and clinical positions in their specialty areas. Several faculty members hold conjoint appointments in Rush Medical College and provide the laboratory medicine courses for the medical college curriculum.

The Section of Medical Technology offers a continuing education program for the laboratory staff of Rush-Presbyterian-St. Luke's Medical Center, maintaining a record of the continuing education activities of all participants. Program faculty and resources span the continuum of clinical laboratory medicine and, therefore, actively support and participate in all areas where technical laboratory application is involved.

Section of Clinical Nutrition

Philosophy

The faculty of the Section of Clinical Nutrition subscribes to the belief that to achieve a leadership role in the profession, the practitioner must be able to demonstrate clinical competence at an advanced level and managerial skills required to facilitate cost-effective and quality nutrition care. Also, the practitioner must be able to evaluate current research in light of relevance and application to effective and efficient practice and must become involved in the research process. The curriculum is designed to support this belief and provides learning opportunities at the graduate level in clinical nutrition, management practice, and research methodology.

The Program

A two-track program having a common core of courses and leading to a master of science degree with a major in clinical nutrition is offered. Track I is a 15-month dietetic internship/master's degree program that integrates

didactic and practicum experience. On completion of the program the student is eligible to take the registration examination for dietitians. Track II is designed for the registered dietitian who wishes to expand his/her understanding of advanced human nutrition, clinical management techniques, and the research process.

Admission Requirements. The student must meet the following requirements:

- Hold a baccalaureate degree from an accredited college or university.
- Provide evidence of having successfully completed a college course in basic statistics.
- Have achieved a minimum cumulative grade point average in college work of 3.0 (A=4.0).
- Have achieved a combined verbal, quantitative and analytical score of not less than 1500 on the Graduate Record Examination, taken within the last three years.

Track I students must provide evidence of having completed the minimum academic requirements necessary for membership in the American Dietetic Association (designated as Plan IV). In addition, evidence of work experience in food service systems and/or clinical dietetics is highly recommended.

Track II students must provide evidence of registration as dietitians in the American Dietetic Association.

Academic Progression. The faculty reserves the right to request the withdrawal of any student whose conduct, health, or performance demonstrates lack of fitness for continuance in a health profession.

Only grades of A, B, or C may fulfill degree requirements in all required courses. Automatic probation shall result when a student falls below a cumulative grade point average of 3.0 or when a student receives a grade of F in any course. A student placed on academic probation shall be informed in writing by the Committee on Progress and Promotions. The letter shall state the reason(s) why the student has been placed on probation and what conditions must be satisfied to be removed from probationary status.

A student who earns a grade of D or F in a required course must repeat the course. Failure to earn a grade of C or better in a repeated course shall result in dismissal from the program. A student who earns a grade of D or F in two or more required courses will be dismissed from the program. In a repeated course, the new grade will replace the earlier

D or F grade in the cumulative grade point average.

Full-time students placed on probation must earn a cumulative GPA of 3.0 or greater by the end of the next two consecutive quarters.

Part-time students placed on probation must earn a cumulative GPA of 3.0 or greater by the end of the next three quarters. Improvement in GPA must be demonstrated each quarter.

Curriculum: Clinical Nutrition

Track I	Credit Hrs.	Track II	Credit Hrs.
Fall Quarter		Fall Quarter	
NTR 521 Human Metabolism I	4	NTR 521 Human Metabolism I	4
HCE 525 Communication in the Health Professions	3	HCE 525 Communication in the Health Professions	3
NTR 503 Dietetics I	3		
NTR 511 Practicum I	3		
	<u>13</u>		<u>7</u>
Winter Quarter		Winter Quarter	
NTR 522 Human Metabolism II	4	NTR 522 Human Metabolism II	4
HSM 574 Health Care Delivery Systems	3	HSM 574 Health Care Delivery Systems	3
NTR 504 Dietetics II	3		
NTR 512 Practicum II	3		
	<u>13</u>		<u>7</u>
Spring Quarter		Spring Quarter	
NTR 541 Interrelationships of Nutrition & Disease I	4	NTR 541 Interrelationships of Nutrition & Disease I	4
HCE 581 Introduction to Research	4	HCE 581 Introduction to Research	4
NTR 505 Dietetics II	3		
NTR 513 Practicum III	3		
	<u>14</u>		<u>8</u>
Summer Quarter		Summer Quarter	
NTR 542 Interrelationships of Nutrition & Disease II	4	NTR 542 Interrelationships of Nutrition & Disease II	4
NTR 571 Management in Clinical Dietetics	3	NTR 571 Management in Clinical Dietetics	3
NTR 506 Dietetics IV	3		
NTR 514 Practicum IV	3		
	<u>13</u>		<u>7</u>
Fall Quarter		Fall Quarter	
NTR 510 Current Professional Issues	3	NTR 510 Current Professional Issues	3
NTR 585 Applied Research Problem	4	NTR 551 Nutrition in Human Development I	4
NTR 515 Practicum V	2		
Elective	3		
	<u>12</u>		<u>7</u>
Winter Quarter			
		NTR 552 Nutrition in Human Development II	4
		NTR 585 Applied Research Problem	4-5
			<u>8-9</u>
TOTAL HOURS REQUIRED FOR GRADUATION		TOTAL HOURS REQUIRED FOR GRADUATION (includes 9-10 hours of electives)	
	<u>65</u>		<u>54</u>

Academic Policies

(Additional policies are listed in the College of Health Sciences and in the Academic Information sections.)

Full-time and Part-time Enrollment.

Track I (combined dietetic internship/master's degree program) is offered on a full-time basis only. The program extends over five quarters including a summer session.

Track II (master's degree program for registered dietitians) is offered on a part-time basis only. The program may be completed in six quarters or longer, up to five years.

Graduation Requirements.

Cumulative GPA of 3.0 or greater.

Minimum number of quarter hours required for graduation:

Track I=65

Track II=54

Track I students shall complete degree requirements within 24 months from the beginning of the first quarter of enrollment in the program.

Track II students shall complete degree requirements within five years from the beginning of the first quarter of enrollment in the program.

Research Activities

The faculty of the Section of Clinical Nutrition is involved in both basic and clinical research. This activity frequently is in collaboration with Rush Medical College faculty members in such departments as biochemistry, immunology/microbiology, and internal medicine. Often, research activity grows out of nutrition consultations by a faculty member in the section.

Clinical nutrition faculty members have been instrumental in establishing the Research and Teaching Laboratory of the Department of Related Health Programs. The laboratory director is a member of the clinical nutrition faculty. The principal function of the laboratory is to provide research facilities and equipment to support faculty and student research projects.

Service Activities

Most faculty members contribute to patient care. This service may represent a major

responsibility or may be limited to consultation and/or related research. Some faculty members participate in hospital food service administration while others are a part of the health care team working directly with patients. All members are committed to the dissemination of sound nutrition information in the hospital and in the community.

Section of Medical Physics

Career Opportunities

Medical physics is concerned with the application of the concepts, methods, and forces of physics to the diagnosis and treatment of human disease. Medical physicists work at the forefront of medical science, often in hospitals with associated academic programs. They carry out research, give direct assistance to their medical colleagues, and help train future medical physicists, resident physicians, medical students, and medical technicians.

The Program

The master of science with a major in medical physics program is offered through the Section of Medical Physics, Department of Related Health Programs of the College of Health Sciences. The diversity of interests of the faculty allows the section to offer a comprehensive program responsive to the needs of students in several areas of medical physics: dosimetry, imaging applied to medicine, radiation sources, physics of radiation therapy, physics of diagnostic radiology, physics of nuclear medicine, and radiation protection.

In order to produce well-rounded, highly competent medical physicists, the curriculum provides training in the physics aspects of radiation therapy, diagnostic radiology, nuclear medicine, radiation protection, and radiobiology, as well as in such subjects as anatomy, physiology, and computer science. The recommended curriculum sequence follows.

Curriculum: Medical Physics

YEAR I			
Fall Quarter			
MPH 460	Intro. Radiation Safety/Diag. Rad. Phy.	3	
MPH 481	Intro. Ther. Rad. Physics	3	
MPH 501	Radiation Physics	3	
PHY 451	Physiology I	5	
		<u>14</u>	
Winter Quarter			
MPH 461	Physics of Diagnostic Radiology	3	
MPH 482	Therapeutic Rad. Physics	3	
MPH 502	Radiological Physics I	4	
ANA 599	Independent Study: Anatomical Science	3	
		<u>13</u>	
Spring Quarter			
MPH 459	Rad. Safety for Research Workers	3	
MPH 483	Dosimetry Applied to Therapeutic Rad.	4	
MPH 503	Radiological Physics II	3	
RAD 521	Radiation Oncology	2	
		<u>12</u>	
Summer Quarter			
MPH 505	Rad. Physics Laboratory	3	
	Elective	3	
		<u>6</u>	
YEAR II			
Fall Quarter			
MPH 599	Independent Study	3	
MPH 597	Intro. to Research	3	
MPH 505	Rad. Physics Laboratory	3	
MPH 531	Radiation Biology	3	
		<u>12</u>	
Winter Quarter			
MPH 471	Physics of Nuclear Medicine	3	
MPH 559	Radiation Protection	3	
MPH 561	Physics of Diagnostic Rad.	3	
MPH 598	Thesis Research	3	
		<u>12</u>	
Spring Quarter			
MPH 491	Intro. to Computers	3	
MPH 504	Topics in Radiation Dosimetry	3	
MPH 598	Thesis Research Elective	3	
		<u>12</u>	
TOTAL YEAR I and YEAR II = 81			

Admission Requirements

The successful applicant must meet the following requirements:

- Earn a B.S. degree with a major in physics or bachelor of science degree in a related discipline with postbaccalaureate education or training in the sciences or in the health professions. The B.S. degree must be from an accredited college or university in the United States or the equivalent of such a degree.
- Earn an overall GPA of 2.5 (A=4.0) or greater in college work.
- Earn a science GPA of 3.0 or greater in college work.
- Provide evidence of having taken the Graduate Record Examination within the last three years.
- Successfully complete one year of college chemistry with laboratory. This requirement may be satisfied by concurrent enrollment in the master of science with a major in medical physics program.
- Submit letters of recommendation from previous college or university instructors.
- Provide evidence of prior success in pursuing independent study.
- Submit a written description of the applicant's scientific research interests.

Applicants holding a baccalaureate degree but with no graduate training should apply for the fall quarter to insure appropriate course sequencing. Such applications will be accepted until February 15 with notification to the applicant of admissions committee action no later than April 15. Later applications may be accepted on a space available basis.

Students with graduate school or scientific research experience or students who have attended medical school may apply for admission to begin study any quarter of the year. Such applications should be made at least two months prior to the start of classes for the quarter in question.

Academic Policies

(Additional policies are listed in the College of Health Sciences and in the Academic Information sections.)

Academic Progression. The faculty reserves the right to request the withdrawal of any student whose conduct, health, or performance demonstrates lack of fitness for continuance in a health profession. Any such

student not voluntarily withdrawing will be dismissed from the University.

Only grades of A, B, and C may fulfill degree requirements in all required courses. Students will be considered in good standing at Rush University unless placed on academic probation.

Academic probation is assigned to a student who earns a quarterly GPA between 2.0 or 2.99 inclusive or whose cumulative grade point average falls below 3.0. Full-time students placed on probation must earn a cumulative GPA of 3.0 or greater at the end of the next consecutive quarter. Part-time students placed on probation must earn a cumulative GPA of 3.0 or greater by the end of the next two consecutive quarters.

A student who earns a quarterly grade point average below 2.0 will be dismissed from the University. A student who earns a grade of D or F in a required course must repeat the course. Failure to earn a grade of C or better in a repeated course will result in dismissal from the University. A student who earns a grade of D or F in two or more required courses will be dismissed from the program. In a repeated course, the new grade will replace the earlier D or F grade in the cumulative GPA.

Students placed on academic probation will be so notified by the program director following a meeting of the Student Progress Review Committee. The letter will state the reasons for placing the student on academic probation and the specific requirements which must be met by the student to reestablish good standing.

Full-time and Part-time Enrollment.

Although the faculty recommends full-time enrollment to maximize the opportunities available to students, part-time enrollment for all or part of the program may be arranged.

Graduation Requirements. The master of science with a major in medical physics program requires a cumulative grade point average of 3.0 or greater to graduate. All degree requirements must be completed within five calendar years from the beginning of the first quarter in which the student is enrolled in the program. The minimum number of quarter hours required for graduation is 81. Each student must develop and carry out a research project which culminates in the writing of a

thesis or the completion of several practicum reports.

At the end of the first year, the student must take and pass a qualifying examination based on selected basic principles of physics and course work taken to date. The examination will include both written and oral components. Passing this examination qualifies the student to continue work toward the master's degree. A final examination in defense of the thesis and/or practicum reports will be given at the end of the second year. Failure to pass the final examination will require determination by the faculty whether the student will be granted a second and last opportunity. Upon such recommendation, a second examination may be scheduled at a mutually determined time within nine months of the initial examination.

Professional Certification

This program provides the basis for certification as a radiological physicist by the American Board of Radiology.

Educational Activities

In addition to providing educational and research experiences for students in the master's program, the medical physics faculty, who hold joint faculty appointments in Rush Medical College, participate in the education of medical students, residents, and other health professions trainees.

Service Activities

All faculty members are practitioner/teachers who provide patient care services through the facilities of Presbyterian-St. Luke's Hospital. Several faculty members also serve as medical physics consultants to a network of hospitals and health care centers in metropolitan Chicago.

Research Activities

Faculty members are active in theoretical and experimental research in medical physics and its clinical applications. This research includes the study of basic mechanisms by which radiation transfers energy to biological and chemical materials; the development of new techniques for directing and measuring various radiations used in the detection, diagnosis, and treatment of cancer; the appli-

cation of radioactive tracers to diagnosis and to the study of metabolic processes; and the optimization of physical parameters for specific studies in diagnostic medical imaging including radiology, computerized radiography and tomography, radionuclide imaging, dosimetry in radiation protection, and radiobiology.

Section of Occupational Therapy

The Section of Occupational Therapy offers two graduate programs, each of which prepares the student for unique contributions to the field of occupational therapy. The professional program is designed for individuals with baccalaureate degrees in other fields who are seeking to become occupational therapists at the graduate level. The postprofessional program is designed for registered occupational therapists who are interested in advanced knowledge in the field.

Philosophy

The graduate programs in occupational therapy emphasize the educational approach which interfaces occupational therapy and didactic material with clinical instruction and practice. The purpose of this educational philosophy is to allow the student maximum opportunity for the highest levels of integration of content and understanding of rationale for instruction. This philosophy is fostered through such concurrent sequencing of theory and clinically based experience that the student is able to relate to either or both environments depending upon which best facilitates the learning process. The early and continuous collaboration between the theoretical and the clinical learning environments allows for the development of a colleagueship between faculty and students. Through such a relationship, the student's personal growth and opportunities for independent thinking are fostered. Since the program is concerned with the student as an individual, the relationship with faculty provides the student with a variety of individualized learning options and experiences within diversified work environments.

Professional Program

Educational Orientation. The professional graduate program at Rush University is designed for the student who has acquired a variety of life experiences through previous educational, vocational, and avocational activities. The program facilitates the incorporation of these life experiences into the educational activities of the program. The educational philosophy utilized in the program which best addresses these spheres is based on theories of adult learning. By basing the program on adult learning theories, it is possible to build on the students' past, connect it to their activities of the present, and predict a future in which they are competent and capable to respond to the needs of the profession. The program is designed to enable the student to learn not only the content and theories of occupational therapy, but also the process of utilizing the multiple resources of the learning environment, including teachers and peers. A series of carefully designed learning experiences, occurring within and outside the classroom, promote independence in conjunction with collegial interaction, problem solving and critical thinking, and analysis and synthesis of information. The graduate is a competent therapist who has maintained initial curiosity and has added to it through increased ability for creative thinking. Because of the graduate's experiences in self-directed learning and in self-identification of needs, he/she is able to be responsible and responsive to the needs of the profession. The graduate is a potential learner in the field who is able to work in the traditional settings of occupational therapy, but, more importantly, the graduate is flexible, autonomous, and informed so as to adapt to the practice of the field in nontraditional settings.

Professional Orientation. Since the Rush graduate will be prepared to work in a variety of traditional and nontraditional settings, his/her practice base is the result of broad experiences within the many arenas of occupational therapy. The graduates have the ability to add depth and validation to their treatment programs as a result of involvement and experiences with problem-solving approaches to therapy. Given the combination of breadth and depth of knowledge and experience related to occupational therapy treatment, the primary strength of Rush University graduates will be their ability to function as highly resourceful clinicians. The role of the

Curriculum: Professional Program

		FIRST YEAR			
Fall Quarter	Credit Hrs	Winter Quarter		Credit Hrs	
ANA 465 *Gross Anatomy	5	NEU 501	Introduction to Neuroscience		4
OCC 450 *Special Studies	1	OCC 502	Occupational Therapy		
OCC 501 Activity Theory & Skills	4		History & Philosophy		3
OCC 461 Health and Development	3	OCC 465	Group Dynamics		3
OCC 463 Principles of Movement	3	OCC 505	Pathophysiology		2
PSY 501 Psychopathology	3				
	<u>19</u>				<u>12</u>
Spring Quarter		Summer Quarter			
OCC 506 Medical Conditions Seminar		OCC 512	Occupational Therapy Intervention II		6
OCC 511 Occupational Therapy Intervention I	2		Organizational Behavior		4
OCC 541 Tests & Measurement in Occupational Therapy	6	OCC 521	Etiology of Occupational Behavior		4
OCC 510 Special Topics Seminar	4	OCC 531	Principles & Methods of Education		2
	<u>3</u>				<u>16</u>
SECOND YEAR					
Fall Quarter	Credit Hrs	Winter Quarter		Credit Hrs	
OCC 533 Principles and Methods of Supervision		OCC 495	Fieldwork I		6
	3	OCC 585	Research Proposal		3
OCC 545 Management Issues in Occupational Therapy					
HCE 525 Communication in the Health Professions	2				
HCE 581 Introduction to Research	3				
OCC 513 Occupational Therapy Intervention III	3				
	<u>6</u>				<u>9</u>
<u>17</u>					
Spring Quarter		Summer Quarter			
OCC 496 Fieldwork II	6	OCC 514	Occupational Therapy Intervention IV		4
OCC 598 Thesis	3	OCC 598	Thesis		3
	<u>9</u>	OCC 590	Advanced Topics Seminar		2
					<u>9</u>
Total Credits Required: 106					
(Elective courses are optional and may be taken at student's discretion)					
*Courses occur between Labor Day and the formal beginning of the fall quarter.					

clinician is the core of all occupational therapy, as it was in the past and as it is projected for the future. The practitioner who is able to base treatment on established fact, internal and external resources, creativity, and problem solving is the practitioner who will contribute to the credibility and viability of the profession. This type of practitioner is expected to be the product of the Rush program. The graduates of the program are able to enter the clinical arena competent and confident of their clinical skills and also able to expand upon those skills as individual situations require it. This continuous process of assessing a situation and expanding upon it contributes to the ongoing personal and professional growth which is vital to occupational therapy. The role of the clinician, as it is understood in this context, incorporates other major roles of the therapist. The involvement of the student in these other roles is another major strength of the program. The additional roles of educator, manager, and researcher cannot be separated from the practitioner's role. The Rush program is designed so that, in the context of their studies, students have the opportunity to explore the functions of the therapist as an educator, researcher, and manager in terms of how they are employed by the practitioner.

Admission Requirements. The applicant to the professional program in occupational therapy must have completed or shown evidence of the following in order to be considered for admission:

- baccalaureate degree from an accredited college or university
- recommended undergraduate GPA of 3.0 (A=4.0)
- completion of the Graduate Record Examination within the last three years
- three letters of reference
- personal interview with members of the occupational therapy faculty or designated substitutes
- statement of familiarity with occupational therapy in the form of observational, volunteer, or work experience
- prerequisite courses, as follows:
 - statistics
 - human growth and development
 - psychology (two courses)
 - introductory sociology or anthropology
 - human anatomy
 - human physiology

Postprofessional Program

Professional Orientation. The foundation upon which this specialized degree program is based rests on those principles and concepts of the neurosciences which are encompassed in the practice of sensory integrative therapy. Although occupational therapy relies on several different theoretical constructs, at this advanced level of professional education, the neuroscientific approach is more suitable to facilitating the acquisition of a sound base in sensory integration. The sensory integration focus of the program, neurological in perspective, is also rooted in the fundamental premise of occupational therapy—the client viewed as a whole functioning person can best be treated through the use of therapeutic activity. The basic assumption of this program is that activity is an integral part of an individual's life and that successful involvement in activity relies on man's sensory integrative mechanisms and their neurological foundations.

The graduate program allows the student to practice and integrate neurological/sensory integration principles and the fundamental premise of occupational therapy within the framework of the basic roles of the therapist-practitioner, researcher, and educator. The graduate of this program is, above all else, a practitioner who is able to incorporate the techniques of sensory integrative treatment into the ongoing practice of occupational therapy. Since research and education are important to the process of graduate education and are also major professional needs, the roles of

researcher and educator are vital components of the practitioner role.

Specialized Orientation. The program covers a specific range of topics leading to specialized competence in the area of sensory integration. The program focuses on the person throughout the entire life span with emphasis on developmental dysfunction at the various stages. The academic progression of the program produces a graduate who is proficient in sensory integrative therapy based on an in-depth understanding of the theory and application of the neurological functioning of the person and the ability to assess deficits and treat the manifested dysfunctions. The graduate is unique in that he/she is qualified to look not only at infancy and childhood dysfunctions, but also at the sensory integrative deficits of adolescent, adult, and geriatric populations.

Admission Requirements.

- baccalaureate degree in occupational therapy from an accredited college or university
- registration by the American Occupational Therapy Association
- recommended undergraduate GPA of 3.0
- completion of the Graduate Record Examination within the last three years
- three letters of reference
- personal interview with members of the occupational therapy faculty or designated substitutes
- one course in basic statistics with a final grade of B or better

Curriculum:post Professional Program

Fall Quarter		Quarter Hrs	Winter Quarter		Quarter Hrs
NEU 501	Introduction to Neuroscience	3	NEU 521	Neurophysiology I Sensory Systems	3
OCC 551	Sensory Integration Assessment	4	OCC 552	Sensory Integration: Theory & Application I	4
HCE 581	Introduction to Research	4	OCC 543	Related Assessment & Evaluation	3
OCC 531	Principles & Methods of Education	2	OCC 571	Occupational Therapy Theory I	3
OCC 561	Occupational Therapy Practicum I*	2	OCC 562	Occupational Therapy Practicum II*	3
		15			16
Spring Quarter		Summer Quarter			
NEU 522	Neurophysiology: Neurology of Motor Behavior	3	NEU 503	Neuropsychology	3
OCC 553	Sensory Integration: Theory & Application II	4	OCC 554	Sensory Integration: Theory & Application III	4
OCC 572	Occupational Therapy Theory II Practicum* or Elective or Independent Study	2		Practicum* or Elective or Independent Study	6
		3			13
Research Implementation is a required course worth six credits. The student may divide those credits among winter, spring, and summer quarters, according to established guidelines.					
Student with more than 2 yrs' experience			Student with less than 2 yrs' experience		
Total Required Courses:			53 hours		59 hours
Electives or Independent Study:			9 hours		3 hours
Minimum Required for Graduation:			62 hours		62 hours
*Practicum: Students with less than two years of work experience as practicing therapists are required to complete four quarters of practicum. Two quarters of practicum are required for those students who have two or more years of professional work experience.					

Academic Progression

(professional and postprofessional programs)

The faculty reserves the right to request the withdrawal of any student whose conduct, health, or performance demonstrates lack of fitness for continuance in a health profession. Any such student not voluntarily withdrawing will be dismissed from the University.

Only grades of A, B, or C may fulfill degree requirements in all required courses. Students will be considered in good standing at Rush University unless placed on academic probation.

Academic probation is assigned to a student who earns a quarterly GPA between 2.0 and 2.99, inclusive, or whose cumulative GPA falls below 3.0. Full-time students placed on probation must earn a cumulative grade point average of 3.0 or greater at the end of the next consecutive quarter. Part-time students placed on probation must earn a cumulative GPA of 3.0 or greater by the end of the next two consecutive quarters.

A student who earns a quarterly GPA below 2.0 will be dismissed from the University. A student who earns a grade of D or F in a required course must repeat the course.

Only one required course may be repeated in the postprofessional program and two required courses may be repeated in the professional program. A required course may be repeated only once and the new grade will replace the earlier D or F grade. Failure to earn a grade of C or better in a repeated course will result in dismissal from the University. Only one D or F grade is allowed in a given academic year.

Students placed on academic probation will be so notified by the program director following a meeting of the faculty at which academic progress has been discussed. The letter will state the reasons for placing the student on academic probation and the specific requirements to be met by the student to reestablish good standing.

Academic Policies

(Additional policies are listed in the College of Health Sciences and in the Academic Information sections.)

Full-time and Part-time Enrollment. Professional Program. The full-time academic program is a 24-month program covering eight academic quarters. A minimum of 106 credits is required for graduation. Instruction is provided by occupational therapy faculty and faculty members from other departments and colleges within the University.

The academic program may be extended to 36 months but the final 12 months must be conducted on a full-time basis. All degree requirements must be completed within 42 months from the beginning of the first quarter in which the student is enrolled in the program. To be considered part-time, a student must be enrolled for a minimum of three credits and fewer than 12 credits per quarter. A minimum of 106 credits is required for graduation.

Postprofessional Program. The full-time academic program is a 12-month program covering four academic quarters. A minimum of 59-62 credits is required for graduation. Instruction is provided by occupational therapy faculty and faculty members from other departments and colleges within the University.

The academic program may be extended to 24 months and all degree requirements must be completed within 36 months from the beginning of the first quarter in which the student is enrolled in the program. To be considered part time, a student must be enrolled for a minimum of three credits and fewer than 12 credits per quarter. A minimum of 59-62 credits is required for graduation.

Unclassified Students. Students may also enroll as unclassified students (see Academic Information section) taking individual courses on a continuing education basis. Credits granted to unclassified students may be applied to the degree if the student formally enrolls in the program at a later time. Twelve quarter hours of such credit is the maximum allowed for application to the degree. Unclassified students who choose to apply for admission to the postprofessional program may request that courses completed in the 12 months immediately prior to application be considered for credit toward degree requirements.

Scheduling. Professional Program. Courses are scheduled daily, Monday through Friday, with occasional Saturday classes.

Postprofessional Program. Courses are scheduled to accommodate the working therapist. To allow students to maintain employment, classes are held during the evenings, on weekends, or as concentrated minicourses.

Fieldwork/Practicum. Professional Program. Preclinical experiences, i.e., part-time fieldwork, occur as part of each of the occupational therapy intervention courses. Because the University is part of an academic medical center, additional clinical experiences are arranged as a component of other courses, when necessary.

Six months (two academic quarters) of full-time fieldwork is a requirement of the program. Fieldwork experiences are arranged conjointly between students and faculty and occur at selected sites within and outside of the Medical Center. Students may choose to extend the program by one quarter during which time they may have an additional fieldwork experience.

Postprofessional Program. In conjunction with formal course work, students will enhance clinical and investigative expertise by participating in practicum experiences in clinical sites within the Medical Center and its institutions. Practicum competencies may be met in clinical sites within the Rush network or may be incorporated into the student's daily job-related responsibilities.

Professional Certification. Professional Program. Completion of degree requirements allows the graduate to sit for the certification examination of the American Occupational Therapy Association. Successful completion of this examination is necessary to become a registered occupational therapist.

Postprofessional Program. Completion of degree requirements provides the student with the option to pursue certification by the Center for the Study of Sensory Integrative Dysfunction. Course work provides the basis for certification and facilitates the accomplishment of certification requirements.

Graduation Requirements. **Professional Program.** The master of science with a major in occupational therapy requires a cumulative grade point average of 3.0 or greater to graduate. All degree requirements must be completed within 42 months from the beginning of the first quarter in which the student is enrolled in the program. The minimum number of quarter hours required for graduation is 106.

Postprofessional Program. The master of science with a major in occupational therapy requires a cumulative GPA of 3.0 or greater to graduate. All degree requirements must be completed within 36 months from the beginning of the first quarter in which the student is enrolled in the program. The minimum number of quarter hours required for graduation is 59-62.

Work-Study Options

A limited number of part-time occupational therapy positions is available for those students in need of employment while enrolled in the program. These positions are at the staff therapist level, and working hours may be arranged with the unit supervisor depending upon academic and individual schedules.

Educational Activities

The Section of Occupational Therapy provides professional training for those seeking to become occupational therapists and for those who are experienced in the field and interested in advanced studies. The program prepares individuals to enter or return to the professional community to practice the skills of occupational therapy and base that practice on a full understanding of the foundations and principles of the field, and to engage in research and educational activities to enhance further the theory and practice of occupational therapy.

The section offers two academic programs. One is a four-quarter program leading to a master of science postprofessional degree with a major in occupational therapy. The program is one of the few in the United States which offers intensive study in the area of sensory integration and neurosciences. The second program is an eight-quarter program leading to a master of science professional degree in

occupational therapy. The professional degree program allows students with degrees in other fields to become occupational therapists at the graduate level.

Faculty members within the Section of Occupational Therapy are involved in teaching and supervisory responsibilities for the master of science degree programs in the College of Health Sciences. In addition, faculty members are involved in integrating the theoretical and clinical aspects of occupational therapy through the implementation of programs with diagnostic and development groups in the various occupational therapy units of the Medical Center.

Research Activities

Members of the section are increasingly involved in identifying research projects in occupational therapy. Several faculty members currently are involved in conducting studies on the assessment of sensory integrative deficits and the application of sensory integrative techniques to various populations. Another multifaceted collaborative study involving therapists from several clinical units focuses on vestibular functioning of normal adult populations as determined by postrotatory nystagmus data, preliminary to hypotheses concerning dysfunctional groups. In addition, other faculty members are involved in projects related to specific aspects of their client population such as swallowing dysfunction, hand rehabilitation, psychosocial functioning, and chemical abuse.

Service Activities

Members of the section provide a full range of assessment and therapeutic services for a variety of diagnostic and developmental populations. Occupational therapy services cover acute and chronic psychiatry, both in- and outpatient; pediatrics, including neonatology, developmental disorders, behavioral and emotional disorders, and learning disabilities; adult physical rehabilitation; geriatrics; and alcohol intervention programs. There are several subunits within each of these areas, and, within each unit, therapists utilize innovative occupational therapy interventions.

Section of Speech and Hearing Sciences

Philosophy

The basic tenet of the faculty in the Section of Speech and Hearing Sciences is that the professional education of speech pathologists

and audiologists, who desire practice in hospitals or other health care facilities, is optimized by drawing upon patients, staff, and the physical resources of an academic medical center. In contrast to many professional training programs, the clinical skills of Rush students are fostered, grow, and mature via observation and supervision by teacher-practitioners. All faculty are certified by the American Speech Language/Hearing Association (ASHA) and participate fully in the clinical process, serving patients that present a full range of communicative disorders. In addition to close clinical supervision which provides the necessary foundation for clinical education, the faculty has developed a curriculum intended to meet ASHA standards. This faculty is supplemented by the expertise of physicians, scientists, and other health care personnel within the Medical Center. Additionally, the

faculty's commitment to research and the belief that an appreciation of scientific matters is valuable to the clinical process and professional growth provides the basis for master's thesis research in the program.

Admission Requirements

Applicants to the graduate program should have completed a baccalaureate degree from an accredited institution in either communicative disorders, speech pathology, audiology, psychology, linguistics, speech communication, or special education. Transcripts should reflect a strong record in the following course work: introduction to psychology, child psychology, statistics, phonetics, language acquisition or linguistics, acoustics or the science of sound, anatomy and physiology of the speech and hearing mechanism. Results of the Graduate Record Examination (GRE) are required.

Curriculum: Audiology

Year I		Year II			
Fall Quarter		Fall Quarter			
SHS 541	Anatomy, Physiology, Pathology of the Auditory System	3	SHS 501	Speech and Hearing Science	4
SHS 521	Language Acquisition	3	HCE 581	Intro. to Research	4
SHS 505	Audiology I	3	SHS 592	Seminar in Audiology	3
SHS 516	Audiology Practicum I	3	SHS 520	Audio Practicum V	3
		12		Elective	2
					16
Winter Quarter		Winter Quarter			
NEU 501	Intro. to Neuroscience	3	SHS 553	Instrumentation in Hearing & Speech Sciences	4
SHS 531	Amplification for the Hearing Impaired	3	SHS 585	External Practicum in Audiology	10
SHS 506	Audiology II	3		Elective	2
SHS 517	Audio Practicum II	3			
SHS 522	Language Disorders or Elective	3			
		15			16
Spring Quarter		Spring Quarter			
SHS 543	Electrophys. Assessment of the Auditory System	4	SHS 572	Psychoacoustics	4
SHS 542	Electronystagmography	4	SHS 575	Issues in Counseling	3
SHS 518	Audio Practicum III	3	SHS 595	External Practicum in Audiology	10
SHS 533	Aural Rehabilitation	4			
		15			17
Summer Quarter					
SHS 544	Child Audiology	3			
SHS 527	Total Communication	3			
SHS 526	Industrial Audiology	3			
SHS 519	Audio Practicum IV	3			
		12			
TOTAL YEAR I and YEAR II				103	

Curriculum: Speech-Language Pathology

Year I		Year II	
Fall Quarter		Fall Quarter	
SHS 540	Anatomy and Physiology of the Vocal Mechanism	4	SHS 501 Speech and Hearing Science 4 HCE 581 Intro. to Research 4
SHS 521	Language Acquisition	3	SHS 524 Fluency, Dysfluency and Stuttering 3
SHS 505	Audiology I	3	SHS 515 Speech-Language Pathology Practicum V 3
SHS 511	Speech-Language Pathology Practicum I	3	Elective 3
		<u>13</u>	<u>17</u>
Winter Quarter		Winter Quarter	
NEU 501	Intro. to Neuroscience	3	SHS 575 Issues in Counseling 3
SHS 561	Articulation Disorders	4	SHS 593 Seminar in Speech-Language Pathology 3
SHS 522	Language Disorders	3	SHS 590 External Practicum in Speech-Language Pathology 10
SHS 512	Speech-Language Pathology Practicum II	3	
		<u>13</u>	<u>16</u>
Spring Quarter		Spring Quarter	
SHS 565	Motor Speech Disorders	3	SHS 562 Communicative Disorders Associated with Cranio-facial Anomalies 3
SHS 551	Diagnostic Methods in Speech-Language Pathology	4	SHS 566 Pediatric Neuro. Disorders 3
SHS 533	Aural Rehabilitation	4	SHS 590 External Practicum in Speech-Language Pathology 10
SHS 513	Speech-Language Pathology Practicum III	3	
		<u>14</u>	<u>16</u>
Summer Quarter			
SHS 527	Total Communication	3	
SHS 563	Voice Disorders	4	
SHS 564	Aphasia & Other Symbolic Disorders	3	
SHS 514	Speech-Language Pathology Practicum IV	3	
		<u>13</u>	
			TOTAL YEAR I and YEAR II 102

Academic Policies

(Additional policies are listed in the College of Health Sciences and in the Academic Information sections.)

Academic Progression. The faculty reserves the right to request the withdrawal of any student whose conduct, health, or performance demonstrates lack of fitness for continuance in a health profession. Any such student not voluntarily withdrawing will be dismissed from the University.

Only grades of A, B, or C may fulfill degree requirements in all required courses as listed in the curriculum outline. Students will be considered in good standing at Rush University unless placed on academic probation.

Academic probation is assigned to a student who earns a quarterly GPA between 2.0 and 2.99 (A=4.0), inclusive, or whose cumulative GPA falls below 3.0. Full-time students placed on probation must earn a cumulative GPA of 3.0 or greater at the end of the next consecutive quarter. Part-time students placed on probation must earn a cumulative grade point average of 3.0 or greater by the end of the next two consecutive quarters.

A student who earns a quarterly grade point average below 2.0 will be dismissed from the University. A student who earns a grade of D or F in a required course must repeat that course or an Alt. as determined by the program director. A student who earns a grade of D or F in two or more required

courses will be dismissed from the program. In a repeated course, the new grade will replace the earlier D or F grade in the cumulative GPA. Failure to earn a grade of C or better in a repeated course will result in dismissal from the University.

Students placed on academic probation will be so notified by the program director following a meeting of the faculty at which academic progress has been discussed. The letter will state the reasons for placing the student on academic probation and the specific requirements which must be met by the student to reestablish good standing.

Part-time Enrollment. Due to the time demands imposed by practicum courses in each quarter of the program, part-time enrollment is discouraged.

Graduation Requirements. The master of science degree with a major in either speech-language pathology or audiology requires a cumulative GPA of 3.0 or greater to graduate. All degree requirements must be completed within 36 months from the beginning of the first quarter in which the student is enrolled in the program. The minimum number of quarter hours required for graduation is 102 in speech-language pathology and 103 in audiology.

Professional Certification

Each of these programs in speech and hearing sciences provides the basis for certification as either a speech-language pathologist or as an audiologist by the American Speech Language/Hearing Association.

Educational Activities

The Section of Speech and Hearing Sciences provides professional training in speech-language pathology and audiology. The section offers a seven-quarter program leading to the master of science degree with a major in speech-language pathology or audiology. The program is one of the few in the United States which bases its education of speech pathologists and audiologists on the facilities and opportunities offered by an academic medical center. In addition to teaching and supervisory responsibilities for the master of science degree programs in the College of Health Sciences, faculty members cross college lines, involving themselves in articulating the practical and service related aspects of

communicative disorders through resident, clerkship, and in-service programs in Presbyterian-St. Luke's Hospital.

Research Activities

Early identification of hearing loss, specifically in the neonate, continues to be a primary research interest. Effectiveness of the crib-o-gram (COG), an automated hearing screening device, was assessed in intermediate and general care nurseries as part of the Stanford University field test project. Currently, brainstem auditory-evoked potentials are being examined in an effort to redefine "risk" in infants weighing less than 1200 grams. This effort is part of a collaborative infant follow-up program with the Department of Ped.

The clinical value of bone conduction hearing aids continues to be a research interest as well as auditory and vestibular investigations of patients with focal neurological diseases and the aged. In conjunction with the increased national awareness of communicative disorders in the elderly client, efforts are under way to establish standards for high frequency sensitivity and acoustic reflex parameters in the aged population.

Increased activity in basic speech-hearing research has occurred this past year. Acoustic phonetic research is of particular interest both for speech perception and speech production. Temporal, spectral, and intensity parameters of speech are being examined in children at different stages of speech-language acquisition and in individuals with communication disorders. Findings are being incorporated as therapeutic and diagnostic procedures for children with articulatory disorders. Acoustic and perceptual investigation of hoarseness in certain postpolypectomy patients has been completed. Therapeutic and diagnostic techniques for communicative impairments in right CVA continue to be investigated in addition to questions concerning speech, voice, and swallowing management of head and neck cancer patients.

The development and study of a gestural therapy technique for symbolic disorders relating to stroke has been completed as well as a four-year study concerning the efficacy of cerebellar stimulation for dysarthric, spastic cerebral palsied individuals. A number of novel clinical case studies are being readied for dissemination by staff and graduate students.

Service Activities

Speech pathologists and audiologists in the Section of Speech and Hearing Sciences provide a full range of diagnostic and therapeutic services for the communicatively impaired through the Section of Communicative Disorders, Department of Otolaryngology and Bronchoesophagology. Staff members have demonstrated considerable expertise in developing specialized evaluative and treatment programs for the communicatively handicapped.

In conjunction with the Head and Neck Cancer Program, techniques have been developed for improvement of speech, voice, and

swallowing. New procedures for auditory evoked potential testing and electrocochleography have been valuable in the assessment of hard-to-test individuals, in ruling out acoustic neuromas, and in the detection of brain-stem lesions. Electromyographic biofeedback has been applied to hyperfunctional voice and stuttering impairments. Other service programs include electronystagmography, spectrographic voice evaluations, comprehensive management of right CVA patients, neonatal hearing testing, and videofluoroscopic evaluation of speech, swallowing, and resonance problems. Patient referrals are made from a broad base of health care providers.

Department of Health Systems Management

Philosophy

The Department of Health Systems Management was formally established in 1975. The department's goals are to provide a graduate program for future health systems managers; to provide postgraduate and continuing education for health systems managers; and to conduct research in order to validate and to further innovation in the management of health care services.

Admission Requirements

Prospective students should have a baccalaureate degree from an accredited college or university with basic course work in financial accounting and statistics. Courses in macro- and microeconomics and computer science are strongly recommended. Applicants are also required to submit scores from either the GMAT or the GRE and three confidential letters of recommendation.

Curriculum

Comprised of six academic quarters, the curriculum is designed to instruct students in the current theory and practice of health services management including the study of organizational behavior, quantitative and analytical techniques, planning, finance, and human resources management. The structure of the curriculum allows students the opportunity to apply managerial principles in real world learning environments and to design and conduct applied research projects.

Curriculum content focuses on:

- an understanding of health services administration through a study of health economics, medical sociology, and psychology;

Philosophy

- knowledge of individual social and environmental determinants of health, disease, and disability through a study of health measurement, patterns and characteristics of illness, health promotion, and disease intervention;

- an understanding of management and administrative skills and their application to health services organizations through a study of organizational behavior, quantitative methods, budgeting, information systems, law, planning and policy development, marketing, manpower planning, personnel management, labor relations, multi-institutional arrangements, long-term care, ambulatory care, and managerial decision making.

Academic Progression. All graduate students in the Department of Hlth. Sys. Mngmnt. must achieve a grade point average of 3.0 in all course work each quarter to maintain satisfactory academic status.

Academic probation results when a student's grades fall below a cumulative grade point average of 3.0 or when a student receives a grade of F in any course. Any health systems management student may be placed on academic probation when the student's academic deficiencies are significant as judged by the Committee on Progress and Promotions. A student on academic probation shall remain so until he/she has remedied all deficiencies and met all requirements established by the Committee on Progress and Promotions for removal from academic probation.

Academic Policies

(Additional policies are listed in the College of Health Sciences and in the Academic Information sections.)

Full-time Enrollment. The curriculum is offered full time only. A full-time student is one who is registered for 12 or more hours of course credit per quarter leading toward a master's degree with a major in health systems management.

Graduation Requirements. To be eligible to graduate, a student must have successfully completed all the academic requirements of the Department of Health Systems Management and achieved a minimum cumulative grade point average of 3.0. In order to receive a master of science degree with a major in health systems management, the student must have earned a minimum of 90 quarter hours of credit. Prior to graduation, the Committee on Progress and Promotions shall recommend to the entire department faculty for its approval those students who are to be awarded degrees.

Educational Activities

Members of the faculty have represented the institution by presenting papers or serving as members of the program faculty in symposia or seminars sponsored by the American Hospital Association, the Hospital Financial Management Association, the American College of Hospital Administrators, the Hospital Management Systems Society, the Illinois Hospital Association, and many other professional groups. Each year the Department of Hlth. Sys. Mngmnt. and the Center for Health Management Studies sponsor the Annual Rush Invitational Seminar on Hospital and Health Affairs. This past year's symposium, "Putting the Business Suit on Health Care," was attended by a record number of health care executives from across the nation.

Educational Activities

The department provides humanistic and theological studies within the colleges, research in the area of religion and health, and an accredited program in clinical pastoral education (CPE) for pastoral personnel.

Research Activities

The Center for Health Management Studies is the focus for the ongoing development of health services research in the Department of Health Systems Management and the Medical Center. Research enables Rush to continue its national prominence as an innovator and pioneer in health care delivery. The output of the department's health services research can most effectively contribute to the evolution of public policy and to an environment of practice supportive of an efficient and effective health care delivery system. On occasion, students are given the opportunity to participate as research assistants to further develop their skills and perspectives.

The department sponsors monthly research seminars which provide a forum for health systems management faculty to present and discuss their research activities with interested students, faculty, and practitioners from throughout the community.

Service Activities

Members of the faculty of the Department of Health Systems Management are actively involved in the operation of the Medical Center through such capacities as hospital administrator, health care planner, University administrator, financial manager, clinician, corporate and labor attorney, researcher, and data processing manager.

Individuals on the faculty frequently are asked to serve as consultants to hospitals, planning bodies, and other organizations depending on their area of expertise.

Additional contributions to the health care field also include serving as faculty in continuing education programs for health service administrators sponsored by the American Hospital Association, the Hospital Financial Management Association, the American College of Hospital Administrators, the Hospital Management Systems Society, and the American Association of Medical Colleges.

Department of Religion and Health

The Bishop Anderson Professorship has been established for teaching in religion and health. The Department of Religion and Health teaches primarily in the areas of thanatology, ethics, the relationship between religion and illness, and family dynamics. In addition, the department emphasizes the philosophy of medicine.

Accredited by the Association for Clinical Pastoral Education, the department offers basic, advanced, and supervisory education in pastoral care. This program is oriented to graduate theological students, pastors, members of religious orders, or other health personnel who are interested and involved in pastoral care and counseling in the midst of a health crisis. Under faculty supervision, students carry direct responsibilities for ministry within patient care areas on an ecumenical basis which includes a sensitivity to particular parochial practices. Students use clinical pastoral education in preparation for parish ministry, chaplaincy, teaching, pastoral counseling, or CPE supervision.

Basic Clinical Pastoral Education. An intensive 11-week introduction to pastoral care, basic CPE focuses on models of ministry and their effect inpatient care. Viewing the patient as a partner in learning, students engage in theological reflection and use pastoral resources with patients and health personnel; they work toward a better understanding of the interface between theology and behavioral sciences in interpreting the human condition. Students may be accepted for this course from any discipline or field of study. The course descriptions in religion and health found in the *Rush University Bulletin* are built on the experience of teaching the materials to theological students. However, there is no inherent difficulty in incorporating nontheological students into the course.

Advanced Clinical Pastoral Education. Advanced CPE is a year-long residency program for persons who have already completed their basic theological degrees, have had pastoral experience and want a pastoral care specialization, such as certification as a chaplain through the College of Chaplains, American Protestant Hospital Association. Students function as pastoral members of interdisciplinary health teams to develop the capacity to utilize their pastoral perspectives and competence through a variety of pastoral encounters.

Supervisory Clinical Pastoral Education. Supervisory CPE is designed for qualified persons who have demonstrated pastoral professional competence and who want to specialize in supervision in preparation for certification with the Association for Clinical Pastoral Education. Students are helped to develop both a theory and theology of pastoral practice, a philosophy of CPE that includes understanding appropriate education models' theory and practice, and a versatility in using supervisory skills and methods.

The program of religion and health is currently being developed to enlarge upon existing course offerings for interdisciplinary and clinical experiences within the various colleges of the University.

Service Activities

The Department of Religion and Health is responsible for providing pastoral care to patients, their families or supporting persons, and the staff personnel who serve them within Rush-Presbyterian-St. Luke's Medical Center. The department offers 'round-the-clock religious ministry to patients in the hospital, providing sacraments, church services, individual counseling, and grief ministry to any person who is in need of them. It is available to support members of the student body and staff and to respond to emergencies when needed.

Research Activities

Until recently, the department had been functioning as a service and training department and had not been actively engaged in research. Research is now being incorporated into the training of CPE theological students. Areas being investigated include attitudinal changes to life crises following educational process, faith systems and their effect on mobilization of physical resources, religious symbolism and patient/family support systems, and acute grief behavior.

THE GRADUATE COLLEGE

Philosophy

The Graduate College has been established to provide opportunities for students to work with selected members of the University faculty to earn graduate degrees with emphasis on the doctoral level in some of the sciences basic to health care. This limited goal, coupled with highly individualized programs, maximizes the students' opportunities for self-realization and faculty opportunities to share a wealth of information and experiences on a personal basis. The organizational pattern allows a high degree of faculty participation in the educational affairs of the college and incorporates student participation. Each division's faculty members are active in basic medical research and training, providing opportunities for the advanced student to engage in a research program leading to the degree of Dr. of philosophy.

The Graduate College faculty strives to provide individualized and flexible scholarly paths for its students. It wishes to avoid arbitrary imposition of uniformity and the encumbrance of unnecessary formality. It believes such an environment will enable students to arrive at the doctoral level invigorated by ideas and high motivation for continued learning. Achievement of such a climate requires adaptation to the needs of students with the limitation in numbers of students implicit in such an approach.

Program

The Graduate College prepares graduate students for the degree of Dr. of philosophy, which is given in recognition of high attainment in a particular field of scientific research as evidenced by submission of a dissertation showing power of independent investigation and forming a contribution to existing knowledge. An undergraduate record of scholastic excellence is an important consideration for admission.

The Graduate College also provides excellent research and training opportunities for advanced students who are interested in enrolling concurrently in the college and in Rush Medical College.

Irrespective of undergraduate record, the process of application review searches for evidence of a high level of creativity and scholarly potential in the applicant. Nondegree students are not admitted with advanced

degree objectives and are not eligible to become candidates for advanced degrees. Upon approval by a course director, any individual may audit a course.

In all cases, a student considering application for admission should first establish contact with the director of his/her choice of program to determine divisional requirements.

The student must accept responsibility for meeting all of the requirements for progress and graduation in the division's graduate studies program. These include mastering recommended course work and successfully passing the division's comprehensive qualifying, preliminary, and final examinations. In this regard individualized studies will be programmed to meet the student's need in achieving essential knowledge in preparation toward these examinations and skills for scholarly investigation.

An acceptable thesis must be researched and prepared by the student. Dissertations will be developed through faculty-guided independent research projects.

Administration of The Graduate College programs is based on the formation by the faculty of divisions of graduate study. These divisions may be disciplinary or multidisciplinary in character. They come into existence for the sole purpose of providing graduate education; their continued existence is entirely dependent upon their demonstrated ability to provide such education at high levels of excellence. The divisions of The Graduate College are seen as being flexible and responsive to changing needs and experiences in their areas of education. To that end, the divisions are headed by directors who serve for definite terms and whose reappointment is subject to review at periodic intervals. Each division of graduate study is responsible through its director to the dean and The Graduate College Council, the latter being made up of directors of all graduate divisions, elected members from the graduate faculty-at-large, and student representatives, with the dean as chairperson. Although the dean and The Graduate College Council hold ultimate responsibility for programs of The Graduate College, the divisions of graduate study retain significant latitude in structuring and administering their own programs.

Academic Progression. All degree-seeking graduate students are required to maintain a

cumulative grade point average of 3.0 (A=4.0) for graded courses. For all courses taken pass/no pass, each division will establish a standard for the number of failures which can be received before the student is considered to be in academic difficulty.

If a student receives grades in one quarter which put the cumulative grade point average below 3.0, the registrar will send a notice to the dean of The Graduate College who will place the student on academic probation. Such probation may extend for two quarters during which the student must return the cumulative grade point average to 3.0.

Good standing and eligibility for enrollment in the next quarter will be lost if a student is unable to regain a cumulative grade point average of 3.0 at the end of the second probationary quarter.

In a case of loss of good standing the following actions can be taken:

- Dismissal of the student for academic reasons.
- A recommendation from the division director to The Graduate College Council to retain the student under specific conditions. These conditions may include limited enrollment for the repetition of selected courses, the taking of an examination, or other activities as may be judged appropriate.

If such conditions of retention are successfully met, the student will be returned to a status of good standing. If such conditions of retention are not met, the student will be dismissed for academic reasons. In addition, the faculty reserves the right to request the withdrawal of any student whose conduct, health, or performance demonstrates lack of fitness for continuation in the degree program.

Dissertation Evaluation. Review of a dissertation will follow the sequence of steps described in the dissertation manual, *Preparation of Theses and Doctoral Dissertations*. Copies of this manual are available in each graduate division and in the Library of Rush University.

Academic Policies

(Additional policies are listed in the Academic Information section.)

The degree of Dr. of philosophy is the highest earned degree conferred by Rush University. The Ph.D. is restricted to those scholars who have demonstrated superior ability in a recognized academic discipline. The Ph.D.

degree is not awarded following the completion of any specific number of formal courses; nor is the degree granted on the basis of miscellaneous course studies and research effort. The entire Ph.D. program must be rationally related, should be highly research-oriented, and should culminate in a thesis of literary and scholarly merit which is indicative of the candidate's ability to conduct original research in a recognized field of specialization. Ph.D. programs are directed by professors who work in close association with selected graduate students. In practice, such programs are composed of formal courses, guided individual study in a chosen field or discipline, study in such cognate subjects as may be required by the candidate's advisory committee, and original research that serves as the basis of a scholarly thesis.

For the most part, specific regulations governing the process which results in final awarding of the degree are developed by the graduate divisions responsible for the candidate's progress. While such regulations may differ in detail from one division to another, each division's program and regulations must be reviewed for approval by The Graduate College Council. In all cases, graduate divisions are required to be explicit and clear about regulations that will affect the candidate. This must be stringently observed in divisional regulations concerning selection of principal advisors, advisory committees, and a plan of study. Similarly, divisions will be explicit and clear concerning procedures surrounding qualifying, preliminary, and final examinations and will also be responsible for providing the candidate with the help and information needed to plan and conduct the thesis research.

At the same time, a major responsibility of the student is to become familiar with the regulations and expectations of his/her chosen division. These regulations and expectations are included in the *Rush University Bulletin* within the section devoted to each divisional program. It is considered to be the student's responsibility to remain knowledgeable about these programmatic regulations as they are set forth; they may change from time to time.

Some divisional programs may require the student to take one or more courses at a university other than Rush. It is the responsibility of the director of the graduate division concerned to make arrangements enabling satisfaction of such course requirements and to inform the student, prior to admission, of such

costs and special arrangements as may be necessary.

Academic policies are college wide. All programs are subject to changes required to conform to the general policies and provisions of The Graduate College adopted by The Graduate College Council from time to time. However, major changes in policy shall not retroactively affect students already admitted to a program. Changing programs, incomplete grades and withdrawals are handled on an individual student basis by the appropriate division director and the faculty, with final approval of The Graduate College Council.

Credit Hours. Rush University is on a quarter system. Each quarter is at least ten weeks in length. An examination period is provided at the end of each term, and most classes give a final examination during this time.

The quarter hour is the unit used by the College of Nursing, the College of Health Sciences, and The Graduate College to determine credit for courses taken. As a general rule one quarter hour represents one lecture hour, two hours of small group discussion or three laboratory hours per week.

Full-time and Part-time Enrollment. Full-time graduate residence requires at least 12 and not more than 16 quarter hours per quarter. Outstanding students may petition the division director and the dean to register for additional courses. Written approval is required. Degree candidates must also obtain from the division director and the dean written permission for less than full-time residence.

Transfer of Credit. Graduate level courses taken at other institutions may be applied to the Dr. of philosophy degree at Rush if they are judged to meet divisional requirements, subject to the approval of the major advisor and the division director. Credit in excess of nine quarter hours requires approval by the division director and the dean. Grades from courses transferred from another institution are not recorded on the student's academic record; the number of credits is recorded and added to the cumulative number of credits.

Pass/No Pass. All elective courses, seminars, and research courses are graded pass/no pass in The Graduate College.

Examination Policy. The examination policy is the responsibility of the individual course director who will inform students of

examination requirements for that particular course. A period at the end of the quarter is provided for examinations. This period may be used as the course director chooses. The Office of the Registrar publishes the final examination schedule each quarter.

Residence. Years of residence required by divisional programs are based on the definition that a student must be registered for a minimum of three subjects in each of three quarters to satisfy The Graduate College requirement of a resident year. The Graduate College minimum residency required of all graduate students is registration as a full-time student for eight quarters of at least 12 credit hours each. Unless granted a formal leave of absence, regular graduate students who fail to register for three quarters in each academic year are considered to have withdrawn from the University and must compete for readmission with other applicants.

Extension of Study. Maximum enrollment is seven calendar years. Any approved leave of absence will be excluded from this time. A student may petition for an extension of the overall time limit to the division director and The Graduate College Council. If such an extension is granted, the student will be expected to enroll full time for each remaining quarter in residence. If a student proposes to maintain active status in The Graduate College while at another location, approval by the division director and The Graduate College Council will be necessary. Such a student will enroll each quarter with the registrar of Rush University for zero hours of credit, and will be charged an enrollment fee of \$100.

Leave of Absence. A student who wishes to leave the University for an indefinite period of time may submit a written request specifying the circumstances and period of time involved to the division director. The director will forward the request with a recommendation to The Graduate College Council for final action. The recommendation should include all conditions of the leave and of the reentry into the program. A formal notice of leave of absence can only come from the dean of the college.

Withdrawal from the University. Students planning to withdraw from the University voluntarily must complete a form available in the Office of the Registrar. The student will obtain several signatures and return all Medical Center materials, the identification card, and name pin. Withdrawal is final once all

Medical Center bills have been paid and the completed form is submitted to the Office of the Registrar.

Readmission. Any student who has withdrawn from a program or has not been enrolled for two consecutive quarters or any dismissed student may apply for readmission by submitting an application for this purpose with a fee of \$30 to the admissions office.

An interview may be required. A reentering student must meet the conditions for reenrollment stated in his/her dismissal or reentry acceptance letter and all policies, requirements, and course sequence in effect at the time of reentry. The student will pay tuition and fees at the rates in effect at the time of reenrollment. Application deadlines may vary by division.

Division of Anatomical Sciences

Philosophy

The Division of Anatomical Sciences offers a program of graduate study at the doctoral level. The curriculum is intended to promote the student's knowledge of biological structure at the gross and microscopic levels along with an appreciation for the functional organization and mechanisms of development.

It is the purpose of the graduate study program to provide background and teaching experience in gross anatomy, histology, and neuroanatomy; to foster the student's conceptual growth through elective courses in cytology, developmental biology, regeneration, biomechanics, reproductive biology and endocrinology, and neurobiology; and to define problems which are amenable to experimental or applied studies as a basis for the student's dissertation research.

The program is dedicated to preparation of the student for roles in teaching and research. As a teacher, the professional anatomist is challenged with participation and organization of courses in medical and graduate curricula as well as participation in medical conferences requiring expertise in specialized areas. As an investigator, the graduate must acquire independence and show resourcefulness in applying anatomical methods to the broader scope of biomedical problems.

students who have satisfactorily completed other graduate work, or superior medical or other professional students at Rush who wish to pursue concurrent graduate study.

An undergraduate record with performance of at least a 3.0 (A=4.0) or equivalent level in the major field of study is required. The major, preferably in biology or chemistry, should include laboratory experience; courses in comparative anatomy and embryology are recommended. The Graduate Record Examination (GRE) is recommended in conjunction with either the biology or chemistry subtests.

Personal interviews are required of applicants whose credentials demonstrate acceptable academic and test performances. The purpose of this interview is to provide the applicant with a better idea of departmental activities, and to assess his/her basic areas of interest.

Specific admission requirements may be waived at the discretion of the Graduate Advisory Committee in anatomy. Advanced placement credits, also subject to approval, are limited to a maximum of one academic year. Since the course cycle begins in the fall quarter, applicants are ordinarily expected to complete their files by May 1 preceding the intended date of admission.

Admission Requirements

The Division of Anatomical Sciences seeks students who can demonstrate motivation toward teaching and research as well as a capacity for independent study in their undergraduate or graduate education. Because of the tutorial nature of graduate study in the Department of Anatomy, careful consideration will be given to possibilities for the expansion of the student's potential area of interest with respect to the expertise and resources of individual faculty members.

Applications are invited from students who have been awarded the baccalaureate degree;

Curriculum

The first- and second-year curricula are devoted to anatomy course work and to complementary electives selected from cell biology, physiology, biochemistry, pharmacology and immunology. Pedagogic experience in anatomy is provided through teaching assistantships during the second year.

An independent study during the second quarter of the first year is designed to direct student interests toward development of a project to be conducted in the summer following the first year. This preliminary project allows the student to apply anatomical

methods to experimental objectives established in collaboration with a supervising faculty member. This tutorial is intended to help the student develop lines of interest for additional elective course work and thesis study.

After completing the course requirements, the student must take the preliminary examination in order to qualify for degree candidacy. The first part of this examination consists of a written, comprehensive examination on course material. The second part, an oral examination, is taken after the student's thesis proposal has been approved.

Upon satisfactory completion of both parts of the preliminary examination, the candidate devotes his/her time entirely to thesis research and writing of the thesis. The thesis must be an original experimental or applied study that is defended before the student's principal advisor and thesis committee.

The program requires a minimum of 144 quarter hours of credit. The Division of Anatomical Sciences maintains a minimum residency requirement of eight quarters of full-time registration in The Graduate College. This residency requirement also applies to students who have received advanced standing.

Curriculum: Anatomical Sciences

Year 1		
Fall Quarter		
ANA 471	Human Anatomy I	8
ANA 451	Histology	5
Winter Quarter		
ANA 472	Human Anatomy II	8
Spring Quarter		
NEU 451	Neurobiology	7
ANA 581	Appchs. & Mthds. in Mrphlgc. Res.	4
Year 2		
Fall Quarter		
ANA 602	Advanced Anatomy*	3
Winter Quarter		
ANA 602	Advanced Anatomy*	3
*Teaching Assistantships		
Total Core Anatomy Courses	38 quarter hours	
Electives	34 quarter hours	
Total Course Requirements	72 quarter hours	
Total Research Hours	72 quarter hours	
Total Hours	144 quarter hours	

Three advanced topics in anatomy (8-12 quarter hours total) are required. These are delivered as seminars, tutorials or, in some instances, as laboratory instruction. Courses offered by the Division of CEL (CEL 501, CEL 512, and CEL 522) are recommended so that four hours from this course series may be applied to the major advanced topic requirement.

The balance of elective hours are subject to approval by the Division of Anatomical Sciences. Two minor electives must be taken outside of the division.

Journal Club. Participation in the departmental journal club is expected each quarter. This club exposes students to current topics in anatomical research and provides opportunities to discuss problems with established investigators.

Concurrent M.D./Ph.D. Program

The exceptional student with a research orientation may wish to pursue both the M.D. and Ph.D. degrees. Coordination of Ph.D. and medical study is especially feasible in the Division of Anatomical Sciences since introductory course work for the Ph.D. degree can be satisfied within the medical curriculum.

Completion of both degrees requires a commitment of at least one to two years beyond that necessary to complete the M.D. degree. A student in such a combined program would ideally take the year following the second year of course work to complete any necessary electives, to take the preliminary examination and to continue the thesis research initiated in the summer after the first year. Flexible scheduling in the last two years permits the student to complete simultaneously the anatomy thesis and medicine clerkships.

These arrangements with the medical school can be adapted to suit individual needs.

Academic Policies

(Additional policies are listed in The Graduate College and in the Academic Information sections.)

Assessment of Progress. The student's progress will be assessed continuously based upon performance in the courses taken and upon evaluations by faculty members.

Students who fail to maintain a 3.0 average will be placed on academic probation. Failure to improve for two consecutive quarters of probation constitutes cause for dismissal.

The preliminary examination, taken after the second year, tests the student's abilities to synthesize material, solve problems, and communicate both verbally and in writing. It consists of a written comprehensive based on course work, and an oral examination emphasizing the student's thesis proposal.

Guidance. Each entering student will be guided in his/ her course of studies by the division director with the assistance of the Graduate Studies Committee until such time as the student determines a course of thesis scholarship. At this time, the student must select a faculty member who agrees to serve as the principal advisor in cooperation with a thesis committee.

Principal Advisor. Every graduate student must have a principal advisor holding appointment in the Division of Anatomical Sciences of The Graduate College. The responsibilities of the principal advisor include the following:

- Ensure that the student's graduate course work satisfies the division and The Graduate College requirements.
- Assist the student in the development of a thesis proposal.
- Provide guidance in the dissertation research and aid in finding laboratory and funding resources to complete the study.
- Help organize the preliminary examination and thesis defense.

Thesis Committee. This advisory body will consist of the principal advisor, two associate advisors, and the director of the graduate division. It assists both the student and principal advisor and serves as a liaison to the Graduate Advisory Committee. If problems arise that cannot be resolved by the thesis committee, the student may appeal to the Graduate Studies Committee or division director.

Preliminary Examination. The preliminary examination, consisting of a written comprehensive and an oral examination, must be passed in order for the student to become a degree candidate. The written comprehensive is taken after completion of the course requirements and tests the ability to synthesize factual material, to present concepts and to communicate in writing. After the student passes the written comprehensive and submits a thesis proposal acceptable to the Graduate Advisory Committee, at least

four faculty members are appointed by the division director to conduct the oral examination. Should the student fail to pass either portion of the preliminary examination, re-examination may be held within three months in accord with recommendations of the Graduate Studies Committee. Failure to pass the second examination constitutes grounds for dismissal.

Thesis Defense. Thesis. The thesis is a scholarly work based on an original project. Its format and review by the advisory committee and dean must comply with the requirements of The Graduate College.

Thesis Defense. The final examination may be taken upon acceptance of the thesis by the dean of The Graduate College and must precede the projected date of graduation in accordance with a schedule determined by The Graduate College.

Oral defense of the thesis serves as the final examination in partial completion of the requirements for the Dr. of philosophy degree. The examining committee consists of a minimum of five faculty members approved by the division director and Graduate Studies Committee. At least three examiners, including the student's principal and associate advisors, will be selected from within the division. Two examiners may be selected from outside the division, preferably, though not necessarily, from outside the University. Distinguished scientists may be invited as guests of the department to examine the thesis and to participate in the final oral defense.

Passing the final examination is based upon the recommendation of the majority of the examiners. In the event that the student fails to pass the final examination, the student may appeal to the dean of The Graduate College who, upon consultation with all parties concerned, may recommend a course of action to be taken.

Research Activities

Modern research and teaching areas in the Academic Facility have been designed specifically to meet the needs of both basic medical science education and research. Individual faculty laboratories are complemented by modern facilities for both scanning and transmission electron microscopy and a bioinstrumentation laboratory. Affiliations also exist with the Department of Ophthalmology and with the Department of Orthopedic Surgery where one of the major gait laboratories in

the country—the John L. and Beatrice Keeshin Human Motion Research Laboratory—is located.

Research in neurobiology encompasses aspects of nerve injury and repair, plasticity in the development and regeneration of the central nervous system, and problems in the pathobiology of muscle. Mechanisms of pattern formation and histogenesis are being studied in regeneration of amphibian limbs. Damage produced by inflammation or by disturbances in blood flow is being studied in relation to the pathology of eye disease. Structural and physiologic studies on the lens are directed to

the function of membrane specializations in cell communication. The organization of the red cell membrane is being studied in relation to pathological deformations and the cytoskeletal components of the erythrocyte. The pathophysiology of the synovial joint and articular cartilage is being studied in experimental models. Studies on the biomechanics of locomotion in health and disease are conducted in the gait laboratory.

Individual faculty are available to discuss their research interests with prospective applicants and to provide documentation of current activities.

Division of Biochemistry

Philosophy

The department has defined its goals in regard to its graduate program on the basis of the expertise of its faculty members. They may be stated as follows:

To provide high quality education, practical training, and research opportunities to students who are interested in practicing biochemistry in one of the following three areas: basic and applied research in molecular-medical biochemistry; research in the biochemistry of cell function; and clinical biochemistry—both in the service laboratory and in investigating the factors involved in the etiology of disease. In other words, the goal is to develop health professionals who will substantially improve health care delivery to the public.

Research strengths and other expertise of the department lie in certain well-defined areas, such as mammalian tissue culture methodology, basic research in connective tissue, metalloelement biochemistry and clinical biochemistry. "Medical biochemistry" is perhaps the most fitting single term that can describe the department's scholarly direction. The tissue culture or cell biochemist attempts to explain how cells interact with their environments and with each other and what causes changes in a cell's physiology, thus making it malignant or aberrant in another way. The classical biochemist, on the other hand, is concerned with fundamental biochemical processes on the molecular level, such as the mechanism of collagen biosynthesis and degradation. It is the classical biochemist's discoveries that are often applied by the clinical biochemist and the cellular biologist to advance their own fields of endeavor.

Clinical biochemists are frequently entrusted with the management and operation of laboratories in a hospital, university, medical school or a medical institute, and, in that capacity, have the opportunity to interact with other health professionals such as physicians and nurses. The clinical biochemist, through his/her research activities, furthers the understanding of the disease process in the human being.

Admission Requirements

- A bachelor's degree in any scientific area. Specific course requirements are as follows: chemistry—one year each of general chemistry and organic chemistry plus one semester or two quarters of quantitative analysis; biology—one year of general biology plus one year of intermediate or advanced undergraduate biology; mathematics through calculus; physics—one year.

Students may be accepted with less than the above minimum requirements with the understanding that such deficiencies are to be made up during the first year of graduate study and that such make-up work may prolong their residency at Rush. A course in physical chemistry must be completed before the preliminary examination is taken if the student has no such credit in his/her undergraduate experience.

- A minimum grade point average of 2.75 (A=4.0) in all science courses taken.

- Graduate Record Examination (GRE) aptitude test and advanced tests in biology or chemistry. There is no minimum score required. However, among equally qualified applicants, those with higher GRE scores will receive preference.

- Letters of recommendation. Three letters are required from persons qualified to judge a

student's potential as a scientist. The referee, whose comments will be taken most seriously by the Graduate Program Committee of the department, will have had extensive contact with the student as a teacher of science or a supervisor in a science-related work situation.

• Students are normally admitted in the fall quarter but the Graduate Program Committee may, at its discretion, recommend admission for the winter, spring, summer quarters.

Curriculum

Introduction. To meet better the objectives delineated above, the curriculum has been formally divided into three tracks: molecular-medical, supramolecular, and clinical biochemistry. The admission requirements are identical for all three tracks, and the first- and a part of the second-year course sequence are identical for all students (see chart). Following this period, during which the students take their basic biochemistry theory and laboratory techniques, immunology, cell biology, pharmacology, and physiology, the students become involved in formal instruction in their areas of specialization. These are finished by

the end of the second year of graduate study. During the summer following the second year of residence, the student normally takes the preliminary examination, which is designed to test the fundamental knowledge developed during the first two years in graduate school. If the examination is passed, the student proceeds to concentrate on his/her research although taking further formal electives in the student's area of interest is strongly encouraged. The thesis sequence involves the presentation of a proposal to the thesis research committee and thesis examination by the thesis examination committee.

Required Didactic Courses. Any portion of this may be waived on a case-by-case basis by the Graduate Program Committee.

All biochemistry tracks (molecular-medical, supramolecular, and clinical biochemistry):

BCH 501, 502, 503	15 quarter hrs.
PHY 451, 452	10 quarter hrs.
CEL 501	2 quarter hrs.
PHR 501	5 quarter hrs.
IMM 501	5 quarter hrs.
BCH 581	4 quarter hrs.
BCH 595	6 quarter hrs.
TOTAL	47 quarter hrs.

Suggested Programs Satisfying Minimum Requirements for the Doctorate in Biochemistry

Year of study	Molecular-Medical Biochemistry			Clinical Biochemistry			Supramolecular Biochemistry		
	F	W	S	F	W	S	F	W	S
1	BCH 501 (5) PHY 451 (5) BCH 595 (1) BCH 699 (1)	BCH 502 (5) PHY 452 (5) CEL 501 (2) BCH 595 (1)	BCH 503 (5) BCH 581 (4) BCH 595 (1) BCH 699 (2)	Identical to Molecular-Medical Biochemistry track			Identical to Molecular-Medical Biochemistry track		
2	IMM 501 (5) PHR 501 (5) BCH 590 (3) BCH 595 (1)	Elective (4-5) BCH 590 (3) BCH 595 (1) BCH 699 (3-4)	Elective (4-5) BCH 590 (3) BCH 595 (1) BCH 699 (3-4)	IMM 501 (5) PHR 501 (5) BCH 611 (3) BCH 595 (1)	BCH 612 (3) BCH 614 (3) BCH 595 (1) BCH 699 (5)	BCH 613 (3) BCH 615 (3) BCH 595 (1) BCH 590 (3)	IMM 501 (5) PHR 501 (5) BCH 621 (3) BCH 595 (1)	BCH 622 (3) BCH 624 (3) BCH 595 (1) BCH 699 (5)	BCH 623 (3) BCH 625 (3) BCH 595 (1) BCH 590 (3)
				Preliminary Examination					
3	BCH 590 (3) BCH 699 (9)	BCH 590 (3) BCH 699 (9)	BCH 590 (3) BCH 699 (9)	BCH 590 (3) BCH 699 (9)	BCH 590 (3) BCH 699 (9)	Elective (3) BCH 699 (9)	BCH 590 (3) BCH 699 (9)	BCH 590 (3) BCH 699 (9)	Elective (3) BCH 699 (9)
4	BCH 699 (12)	BCH 699 (12)	BCH 699 (12)	BCH 699 (12)	BCH 699 (12)	BCH 699 (12)	BCH 699 (12)	BCH 699 (12)	BCH 699 (12)

Notes:

- Graduate students would normally register for 12 quarter hours of BCH 699 in the summer quarter, although didactic courses such as BCH 590 might also be offered occasionally.
- Students may register for elective didactic courses beyond those required at any time after consultation with their advisors and tract coordinators. Credit hours for BCH 699 would then be correspondingly lower. Electives that are strongly recommended are in the areas of microbiology-virology, statistics, data processing, and radioisotope techniques.

Additional Requirements		
Molecular-Medical Biochemistry Track Only:		
BCH 590	18 quarter hrs.	
Electives	8 quarter hrs.	
Clinical Biochemistry Track Only:		
BCH 611, 612, 613	9 quarter hrs.	BCH 621, 622, 623 9 quarter hrs.
BCH 614, 615	6 quarter hrs.	BCH 624, 625 6 quarter hrs.
Chemistry 590	9 quarter hrs.	BCH 590 9 quarter hrs.
Supramolecular Biochemistry Track Only:		

Academic Policies

(Additional policies are listed in The Graduate College and in the Academic Information sections.)

Admission and Initial Progress. Upon being admitted to the program, the student follows the prescribed course work during the first year. As soon as possible after matriculation, the student decides which track he/she will follow and selects a principal advisor. If during the first two years a mutually agreeable advisor cannot be found, the student must leave the program. At any time during the first year, the student may begin his/her research program with the advice of his/her advisor.

Preliminary Examination. This examination is given to students normally after a two-year period in the program. If this examination is passed, the student formally presents his/her project to his/her thesis research committee. The preliminary examination, designed to test the student in the fundamentals of biochemistry and related basic medical sciences pursued in the first two years of the program, consists of written and oral portions. The student's advisor, with the consent of the track coordinators, recommends to the Graduate Program Committee that the student is ready to take the examination. The latter appoints the membership of an examining committee of six professors with the student's advisor as chairperson and at least two members of the committee who are from outside the department. The examining committee, when approved by the chairperson of the department, constructs and administers the written portion of the preliminary examination to the student and follows this with an oral examination. The results of the written and oral examinations, taken as a whole, determine if a student has passed the preliminary examination. The chairperson of the examining committee informs the Graduate Program Committee of the result. If the student has not passed, a report by the examining committee, signed by all members thereof, describes the committee's recommendations, e.g., the student should not be allowed to continue in the doctoral program, the student should be given another opportunity to retake the preliminary examination after appropriate remedial work, or another course of action deemed appropriate in a particular case. The Graduate Program Committee transmits the examining committee's recommendation with or without its own comments to the chairperson of the department for approval.

Thesis and Thesis Examination. After the student passes the preliminary examination,

the Graduate Program Committee, with the approval of the chairperson of the department, appoints a thesis research committee consisting of the student's advisor, the two track coordinators, and two professors, one of whom must be from another department, to guide the student's research progress. The student submits to the thesis research committee a research proposal specifying his/her research objectives, methodology to be used, and significance of the project. If the proposal is approved, the approval is transmitted to the Graduate Program Committee. If not, the student and his/her advisor are asked to revise the proposal.

When the research project has achieved the desired objective as judged by the student's thesis research committee, the student compiles the first draft of his/her thesis. This is conveyed to the Graduate Program Committee. If the quality of the work is deemed adequate, the Graduate Program Committee, with the approval of the chairperson of the department, appoints a thesis examination committee for the student. It is anticipated that the thesis research committee with one or two additions will also function as the thesis examination committee. The thesis examination committee guides the student in preparing the final form of his/her thesis and administers an oral examination, where the student is required to defend his/her work. At the discretion of the thesis examination committee, the student may be requested to present a seminar in lieu of the defense examination. The thesis examination committee reports its decision (pass or no pass) to The Graduate College Council which recommends that the student graduate if the defense is successful. In case of a no pass, the chairperson of the thesis examination committee is to prepare a report with a recommendation for further action.

Quarter Hours Required. A full-time graduate student is registered for 12 or more hours of credit each quarter. A total of 146 quarter hours with approximately 12 hours per quarter in residence is required for graduation. The Graduate Program Committee may, at its discretion, recommend a waiver to The Graduate College Council of any portion of this requirement for students with previous graduate work at Rush or elsewhere.

Grade Requirements. Students must maintain a GPA of 3.0 (A=4.0) in order to remain in the program, to be admitted to the preliminary examination, and to graduate. Electives,

seminars and research courses are graded pass/no pass. All other courses must be taken for a letter grade. At the end of each academic year, the student's academic progress is reviewed by the Graduate Program Committee. If the GPA is found to be below 3.0, the committee may put the student on probation by giving the student an opportunity to correct the deficiencies within two succeeding quarters, and if the student does not correct the deficiencies within that time, dismissal shall be mandatory. Alternately, the committee may recommend the student's dismissal from the program. A student receiving a failing grade in a nonrequired elective is reviewed by the Graduate Program Committee to decide how the failure is to be rectified.

Time Limit. For the completion of the doctoral program no more than seven years shall be required though quarter by quarter extensions may be granted via petition to the Graduate Program Committee.

Research Activities

The faculty of the Department of Biochemistry is currently involved in several areas of investigation. Some of these research programs are joint efforts with other departments, giving the student an opportunity to interact with researchers of other disciplines as well as clinicians. Major research areas are the following:

- Connective tissue biochemistry focusing on the structure and function of the various molecular components such as proteoglycans and collagen.
- Liver biochemistry involving the study of liver regeneration and various changes in serum in response to liver disease.
- The biochemistry of human milk proteins and other components, particularly those showing growth-promoting activity toward Bifidobacteria.
- Iron metabolism in mammalian as well as microbial systems.
- Cancer biochemistry, paying particular attention to the control of tissue invasion by tumors, and the mechanisms of tumor induction in the prostate and breast.
- The biochemistry of the fibrinolytic system studying the plasminogen activators from tissues.
- Endothelial cell physiology, including the interaction between platelets and the cellular and molecular elements of the blood vessel,

the involvement of prostaglandins in the thrombotic process and cardiovascular disease, and the regulation of endothelial cell proliferation.

- Studies on the structure and synthesis of the red blood cell membrane lipids.
- Neurochemistry concentrating on the role of various drugs in combating cerebrovascular disorders.
- Application of biochemistry to medical problems.

Service and Clinical Activities

The department has several faculty members who are involved in the operation of hospital clinical biochemistry laboratories and who perform basic and development research in the area of clinical biochemistry. Such laboratories are available for student training and, on a limited scale, student employment. Clinical biochemistry track students will receive a major portion of their training in the various clinical biochemistry laboratories now served by the department's faculty members.

Concurrent M.D./Ph.D. Program

A student may apply for admission to the concurrent M.D./Ph.D. program in biochemistry either at the time of medical college application or later, after admission, while enrolled in the medical college. No student will be admitted to the graduate program before being admitted to the medical college.

The program is tailored to an individual student's needs. Normally the student first takes the required preclinical courses at Rush Medical College and passes the National Board of Medical Examiners (NBME) Part I Examination. The student may then begin work in the graduate program, which would normally last for two to three years. Following the completion of graduate work, the student resumes medical studies in the clinical clerkships. Alternatively, the medical student may complete the medical school requirements for graduation before starting work toward the Ph.D. degree.

The participant in the concurrent M.D./Ph.D. program will be expected to fulfill the same departmental requirements as the Ph.D. student: formal course requirements at the appropriate grade level; passing of the preliminary examination; and the submission

of a high quality thesis based on original research work.

Many formal course requirements for the Ph.D. degree will be met by taking the prescribed Rush Medical College courses, e.g., biochemistry, pharmacology, physiology, immunology, and electives; however, these courses will be evaluated by letter grade rather than on the honors, pass, fail system.

The manner in which the student will meet any additional formal course requirements as

specified by the Graduate Program Committee will be determined on an individual basis. It is expected that all course requirements will be met by the M.D./Ph.D. program participant during the first year in the graduate program and that the preliminary examination will be taken at the end of the first year. The remainder of the student's time is to be spent in research activities. The overall M.D./Ph.D. program would normally require six to seven years to complete.

Division of Cell Biology

Service

Through its director, the division assumes the professional administrative responsibility for the electron microscopy laboratory of The Graduate College and its program. Training in use of the equipment is available at all times for those using the facility for research purposes.

The Program

Generally, cell biology explores the structural organization and functional integration within cells. As a field of study, its knowledge and techniques extend to all the specialized fields of the health sciences. The purpose of the Division of Cell Biology is to supplement understanding of such basic knowledge and techniques for students in the health sciences. The division encourages integration of the resources of people and facilities throughout Rush University to produce a comprehensive study of the cell. Such a purpose must be multidisciplinary, for cell biology spans many departments within the University, including anatomy, biochemistry, immunology, microbiology, pathology, pharmacology, and physiology.

Historically, the electron microscope has had a major impact on the growth of cell biology. The teaching of the division is centered around the electron microscopy laboratory of The Graduate College. Students will study the ultrastructure of the cell and its organelles in electron micrographs. But it is most important that they learn about the function of the organelles in a multidisciplinary fashion. Thus, the supramolecular structure and biochemical ultrastructure of the cell constituents are emphasized. Advanced students will learn the technical skills necessary for pursuit of research projects involving cell biological techniques. Teaching is organized with courses in cell biology and electron microscopy. Students taking such courses may use them as credits toward their Ph.D. requirement in other graduate divisions of Rush University, subject only to the regulations of those divisions.

Courses

The courses available are subject to demand and limitation to graduate students within the graduate, medical, nursing (i.e., graduate nurses), and health sciences colleges.

Division of Immunology

Philosophy

The goal of this program is to train individuals for careers as independent investigators in immunology who will contribute to the advancement in understanding immunological mechanisms in health and disease.

Admission Requirements

Students who have received the baccalaureate, master's, or doctoral degree may apply. Although not essential, it is recommended that students wishing to enter the immunology program should have achieved a

high level of competence in biology, mathematics, and chemistry. It is important that applicants be adequately prepared to engage directly in graduate study and research.

Candidates usually enter the program in the fall quarter; applications should be submitted as early as possible and no later than April 1. Applications will be evaluated as they are received.

Applicants for admission to the program will be evaluated initially by the departmental admissions committee and then the departmental faculty. Final approval for admission will be made by The Graduate College Council. Considerations for admission will

include overall academic record, the recommendations of the sponsors, results of a recent Graduate Record Examination or its equivalent, and the description of the applicant's own aspirations and interests. Personal interviews will be arranged for potential candidates after the preliminary screening. Students will be admitted into the program at levels other than first year only under exceptional circumstances; this will require approval by the faculty of the Division of Immunology and by The Graduate College Council.

Curriculum Requirements

A core program of courses encompassing major aspects of immunology given concurrently with laboratory tutorials and pre-thesis research comprises the first two years.

Courses in basic and clinical immunology, biochemistry, microbiology, molecular genetics, cellular immunology, and molecular immunology are required. Additional advanced courses may be selected from the following: complement, structure and immunobiology of membranes, advanced cellular immunology, tumor immunology, immediate hypersensitivity, inflammation and hemostasis, clinical immunology, bacterial pathogenesis and host defense, and virology.

Academic Policies

(Additional policies are listed in The Graduate College and in the Academic Information sections.)

General Information. A minimum of three years of full-time (four quarters per year) study and research or the equivalent in part time, is required to satisfy the residency requirements of this program.

Upon admission each student will be assigned by the program director to an individual tutor who will be responsible for guiding the student's academic activities during the first 12 months when the selection of a principal advisor for thesis research should be made. During the first 12 to 24 months the student will carry an academic program designed for his/her own requirements through frequent discussion with the student's tutor and principal advisor, and with the Graduate Advisory Committee. This program should provide the student with a thorough grounding in immunology and appropriate related basic sciences and practical experience in several laboratories of the division faculty.

Following the demonstration of competency in the areas of immunology, encompassed by the core curriculum and other elective courses, and the acceptance of a thesis proposal, students will then essentially devote themselves full time, with participation in general departmental activities, to their thesis research. The research program will be carried out under the guidance of a designated principal advisor and a thesis committee. Following agreement by the student, advisor, and thesis committee that a suitable stage in the research program has been reached, the student will prepare and present a thesis demonstrating the ability to carry out a research program and to contribute an original proposal to the area of investigation.

All students must meet the basic requirements of The Graduate College. Passage of the preliminary examination as partial fulfillment for entrance into candidacy for the Ph.D. degree is dependent upon demonstrated competence in the field of immunology. This can be achieved by participating in the recommended core program of lecture and tutorial courses of both a basic and advanced nature which may be supplemented by independent study. Other requirements, as specified by the student's thesis advisory committee, may be met by completion of lecture, tutorial, or laboratory courses in other divisions of The Graduate College.

Courses in cell biology, pharmacology, histology, pathology and statistics are considered relevant to training in immunology; these are available as part of the student's academic program but are not considered essential for all students. It is anticipated that courses in some subjects considered essential for a particular student's academic program will not be available in The Graduate College. Such requirements may be met either by special arrangement with the faculty of other institutions or by enrolling in or auditing such courses available at other institutions within the geographical area. Faculty assistance in the identification of these courses and supporting tutorial instruction will be arranged. Involvement also is required in the immunology department research conferences, journal clubs, and tutorial discussions as may be specified from time to time by the Graduate Advisory Committee.

Assessment of Progress. The academic progress of each student is continuously assessed by each faculty member with whom

the student has worked. The use of conventional examinations or tests is encouraged but is not required, and instructors are free to use whichever system of assessment they wish to apply, provided their criteria are made explicit.

Evaluation of the overall progress of a student is based on reports received at least biannually from the tutor or principal advisor and the thesis advisory committee. The reports describe the status of the academic program, the progress of research and laboratory activities, and identify projected requirements for the remainder of the program.

It should be stressed that the purpose of such assessment and examination is primarily to aid the student in achieving academic goals by determining depth of understanding of the several areas of study and, when necessary, by identifying problems in order to enlist the aid of other faculty to assist the student in his/her training. Considerable importance in this continuous assessment is placed on the student's ability to communicate. Guided development of the skills required for both literary and verbal presentation of knowledge and ideas, as well as their formulation, is an important responsibility of the faculty in this program.

Preliminary Examination. A comprehensive written preliminary examination is given at the end of the second year of study. This examination covers the recommended core program of courses in immunology and successful completion is required for proceeding into candidacy.

Graduate Advisory Committee. A committee consisting of two or three elected faculty members, the chairperson of the Department of Immunology/Microbiology and the program director (appointed by the chairperson) shall participate in the administration of this program. The functions of this committee are the following: to assist each student in the design of an appropriate academic program; to guide both the student and faculty in advisor selection and in the appointment of the thesis advisory and thesis examination committees; to ensure the continued satisfactory progress of the student; and to initiate any necessary changes in or additions to this program. The Graduate Advisory Committee also shall review biannually the progress of each student throughout the program and shall report annually to the faculty of the division on the progress of each student.

Thesis Advisory Committee and Thesis Proposal. It is expected that within five quarters of admission the student shall have identified an area of specialization and a principal advisor with whom to carry out his/her research activities. Concurrent with the development of a research program and within 11 quarters of admission, the following three steps should be taken and accepted by the Graduate Advisory Committee for the student to continue in the program:

- Formulation of a thesis advisory committee that shall have five or six members including the principal advisor, three or four faculty members, and one other individual with recognized expertise in the candidate's field of interest who is selected jointly by the candidate and principal advisor. This individual, not of the division, should be a faculty member of an institute of higher education, active in research in the area of investigation, who should demonstrate willingness to maintain active contact with and advise the committee and student concerning the progress of research training for the duration of the candidacy. When additional advisors are required, these also shall be members of the thesis advisory committee. The chairperson of this committee shall be an active member of the Department of Immunology/Microbiology. Each student will be required to meet with his/her thesis advisory committee every six months.
- Presentation to and acceptance by the thesis advisory committee of a thesis proposal that should constitute a scholarly outline of work leading to research that will contribute to existing knowledge. The proposal should include an extensive review of the relevant literature, and a detailed outline of the proposed research demonstrating an understanding of the technical and theoretical aspects of the experimental protocols. The student will be required to defend this proposal before the thesis advisory committee and, if indicated, the Graduate Advisory Committee. This document is considered a blueprint for a suitable thesis project at the time it is prepared and accepted. Changes in project or strategy during the student's thesis research may be made with the approval of the advisor and the thesis advisory committee.
- Successful completion of course work identified in the student's academic program, and adequate performance in an oral and/or written preliminary examination administered by the Graduate Advisory Committee.

Thesis. Following admission to candidacy the student shall devote full time to research activities under the guidance of the principal advisor and thesis advisory committee, and shall be actively involved in all the scholarly pursuits of the Department of Immunology/Microbiology, including tutorials, seminars and journal clubs. The student is expected to seek opportunities to gain experience in teaching and, where possible, to be maximally involved in the teaching activities of the faculty to the extent that this does not interfere with the progress of the research program.

Following at least four quarters of research activity and agreement by the student and the thesis advisory committee that research progress is such that a thesis may be prepared and presented, the Graduate Advisory Committee shall be notified. At least three months prior to the expected date of completion, a timetable will be set by the Graduate Advisory Committee providing a deadline for submission of the thesis and times for presentation and defense of thesis. Additional examinations also may be required and a timetable will be established for these.

A thesis examination committee will be appointed for each candidate by the Graduate Advisory Committee with the approval of The Graduate College Council and the dean. The committee shall be composed of the thesis advisory committee of the student and any additional members of the faculty of The Graduate College deemed appropriate. In addition to their evaluation of the thesis, the examining committee, through consultation with the Graduate Advisory Committee, may request evaluation of the written thesis by at least one scientist (external examiner) of international stature in the field of investigation who is not affiliated with Rush University.

Recommendation to the University for the award of the degree of Dr. of philosophy is made on the basis of scholarly achievement and research ability. The role of the thesis examination committee is to evaluate the student based on the following:

- Presentation and general defense of the scientific basis of the thesis in an open lecture.
- Reports of any external examiner(s) concerning the standard of scholarly research presented in the thesis.
- An oral defense of thesis before the examining committee and approval of the written thesis.

The thesis examination committee may request additional examination of the student or evaluation of the thesis and submit its recommendations to the Graduate Advisory Committee, which, upon agreement that the student has satisfactorily met the requirements for the award of the degree, communicates its recommendations to The Graduate College. If within ten quarters following entrance into candidacy the student has not submitted a thesis or the thesis advisory committee has failed to notify an intent to submit a thesis, the Graduate Advisory Committee may assume the role of thesis advisory committee to evaluate the progress of the student and suggest modifications that would enable candidacy requirements to be completed within one calendar year. It is expected that students will complete the program in less than the seven-year period specified by The Graduate College. Requests to the program director and The Graduate College Council for extension of enrollment beyond this period will be considered only under exceptional circumstances.

Research Activities

Areas of current interest in which research training is offered include the immunobiology of the inflammatory response; the biology of the complement system, including mechanisms of activation, the control of the complement attack mechanisms and the pathophysiology of complement deficiencies; pathogenesis and immunobiology of amyloid; immunopharmacology, cellular immunology, particularly cell-mediated mechanisms in inflammation; mechanisms underlying the allergic response; immune interactions of cells and membranes; the immunopathology of coagulation; and the structure and function of the C-reactive proteins and other molecules associated with the acute inflammatory response. Also available is training in virology, including structural and functional relationships in the final assembly of paramyxoviruses, cellular receptors for human hepatitis B virus, gene expression and pathogenesis of wood-chuck hepatitis virus and the molecular biology of virus-induced Marmoset tumors. The application of basic research to questions of human health and disease is a general commitment of the faculty of this program.

The current annotated departmental research report is available on request.

Service and Clinical Activities

In addition to offering the graduate program and conducting active research programs, the department teaches immunology to medical

students, offers an allergy/immunology residency program, and maintains a close affiliation with the hospital's clinical immunology laboratory.

Division of Pharmacology

Philosophy

The Division of Pharmacology offers study and research programs leading to the degree of doctor of philosophy. The division is composed of faculty members active in basic medical research, pharmaceutical sciences, and clinical investigation. Such diversity of interest allows this division to design doctoral programs that satisfy the needs of students interested in most aspects of pharmacology. A program of study has also been created for students who wish to enroll concurrently in this division and in Rush Medical College.

The goal of the division is to provide excellent training in research and teaching. Each student has the opportunity to participate in research of the most basic chemical nature and in research aimed at solving disease problems. Emphasis is also placed on the development of drug analysis methods, for research and as a practical laboratory problem in a service setting, especially as related to drug trials and other areas of clinical investigation. Teaching exposure is encouraged throughout the entire training period.

Admission Requirements

In addition to the basic requirements established by The Graduate College, the Division of Pharmacology has the following requirements for admission to its program. The academic experience of the student will usually include a minimal undergraduate GPA of 3.0 overall and a 3.5 in science courses (A=4.0). Recommended courses include calculus, college physics, organic chemistry, and physical chemistry. Students with deficiencies in basic course work can be admitted to the program. However, for any such applicant, the division will retain the right to require extra course work that will then be considered a prerequisite for admission to candidacy for the Ph.D. degree.

The Graduate Record Examination (GRE) is not required by the division although it is highly recommended that applicants take the verbal, the quantitative, the analytical, and the appropriate advanced tests.

Applications for admission will be accepted by the division for all quarters of the year.

Incoming students with no graduate training should consider applying only for the fall quarter due to the scheduling of the basic required course sequence. When applications are received before February 15, a decision will be sent to the applicant before April 15. Later applications for the FA quarter may be accepted if space is available. Students with research experience can begin graduate studies during any quarter of the year, and such applicants should expect to continue their research or begin an active research program within the division at the time of their admission. In either case, early application is recommended because of the small number of places available.

Applications will be evaluated by the pharmacology division director and by the division admissions committee. The admissions committee will base its recommendation regarding admission of the applicant on several factors. All prior academic experience and the letters of recommendation will be evaluated for an indication of the applicant's potential for success in graduate studies. A statement by the applicant describing his/her own goals and motivation will be studied to determine the compatibility between the applicant's goals and the capabilities of the graduate program. With rare exceptions, all applicants will be required to appear for an interview with faculty members in the Division of Pharmacology before admission to the program. A recommendation from the division regarding the applicant's admission will be presented to the dean and The Graduate College Council for final approval.

Curriculum

This program is based on a study and research schedule that should be completed within three to six years of full-time study. During the first year the student is usually committed to completing required course work and eliminating deficiencies, if any. Elective courses in other divisions will be available throughout the program. During the second and later years, required courses are completed and the student is encouraged to enroll in appropriate courses within this and other

divisions of The Graduate College. Research ordinarily begins during the first year and continues as the primary activity throughout the second and later years.

The required courses for all graduate students in pharmacology are biochemistry, medical physiology, biostatistics, medical

Curriculum: Pharmacology

Year I						
Fall Quarter		Winter Quarter		Spring Quarter		Summer Quarter
BCH 471	4	BCH 472	6	BCH 473	2	PHR 598
PHY 451	5	PHY 452	5	PHR 521	3	Elective
PVM 541	3	PVM 542	3	PHR 622	4	
PHR 591	2	PHR 591	2	PHR 591	2	
PHR 691	1	PHR 691	1	PHR 691	1	
Total Credits	15		17		12	12
Year II						
Fall Quarter		Winter Quarter		Spring Quarter		Summer Quarter
PHR 501	4	PHR 502	4	PHR 503	2	PHR 598
PHR 591	2	PHR 591	2	PHR 591	2	Elective
PHR 598	5	PHR 551	3	PHR 598	7	
PHR 691	1	PHR 598	2	PHR 691	1	
		PHR 691	1			
Total Credits	12		12		12	12

For students who have already taken these courses elsewhere, the recommendation of the present course director or evidence of satisfactory performance in the course may allow the division to consider the requirement satisfied.

Concurrent M.D./ Ph.D. Program

The graduate program in pharmacology will be offered in the form described to the student who has been admitted to both the graduate program in the Division of Pharmacology and to Rush Medical College and who elects to begin both programs of study in the same year. During the first two years, the student will complete the required courses in the pharmacology graduate program as well as the regular medical college curriculum for that period of time.

The student will then interrupt Rush Medical College enrollment and concentrate full time on graduate studies in the Division of Pharmacology. When the graduate work is complete the student will continue with the clerkship program in the medical college.

The student will be strongly encouraged to begin a research program during the summer

pharmacology, advanced topics, pharmacokinetics, laboratory instrumentation, experimental models in pharmacology, and seminar.

before course work begins. Research can be included in the curriculum at any time. After the second year, the student will begin full-time enrollment in The Graduate College, and the clerkship program in Rush Medical College will be delayed until the graduate work is complete. During this time, the student will complete the required course work, enroll in advanced or elective courses, pass the comprehensive qualifying examination, present and defend a suitable thesis protocol, complete thesis research, and present and defend an acceptable thesis. The Ph.D. degree will be awarded by Rush University upon the successful completion of this training program. The student will then continue with the clinical curriculum of Rush Medical College.

Students who are admitted to the Division of Pharmacology graduate program and to Rush Medical College but who do not begin these study programs at the same time may also benefit from this combined curriculum. An individual study program which includes available aspects of this curriculum can be designed for such students.

Students who enter this program are subject to the full conditions and requirements of both colleges.

Curriculum: M.D./Ph.D.

Year I			
Summer Quarter		Fall Quarter	
Graduate College Research	12	Medical College Human Anatomy *Physiology *Biochemistry Behavioral Sciences	Graduate College *Advanced Topics in Pharmacology 2 5 5 *Biostatistics 3 *Seminar 1 Total Credits 16
Total Credits	12		
Winter Quarter		Spring Quarter	
Medical College Human Anatomy *Physiology *Biochemistry Behavioral Sciences	Graduate College *Advanced Topics in Pharmacology 2 5 5 *Biostatistics 3 *Seminar 1 Total Credits 16	Medical College Microbiology Neurobiology *Biochemistry Behavioral Sciences Preventive Med.	Graduate College *Advanced Topics in Pharmacology 2 3 *Instrumentation 3 *Seminar 1 Total Credits 9
*Required Course, Division of Pharmacology			
Year II			
Summer Quarter		Fall Quarter	
Graduate College Research Laboratory Models Elective	5 4 3 12	Medical College Pathology Immunology *Pharmacology Genetics Behavioral Sciences	Graduate College 4 2 1 Total Credits 7
Winter Quarter		Spring Quarter	
Medical College Pathology Clinical Pathophysiology O&C/Clinical tutorial *Pharmacology	Graduate College *Advanced Topics in Pharmacology 2 *Pharmacokinetics 3 *Seminar 1 Total Credits 10	Medical College Pathology Clinical Pathophysiology O&C/Clinical tutorial *Pharmacology	Graduate College *Advanced Topics in Pharmacology 2 2 *Seminar 1 Total Credits 5
*Required Course, Division of Pharmacology			
Year III			
Summer Quarter			
Part I of National Board of Medical Examiners Comprehensive Qualifying Examination			

Academic Policies

(Additional policies are listed in The Graduate College and in the Academic Information sections.)

Academic Progression. Academic Advisor, Major Advisor. The graduate division director functions as the academic advisor to the student during the first year. The director, during this time, determines the course schedule with the student and monitors the student's progress. Beginning in the first year, the student is expected to gain laboratory experience. This activity is intended to lead to the definition of research interests and to the selection of a major advisor. The major advisor, a faculty member in the Division of Pharmacology, then accepts the supervisory role in the development of the student as a scientific investigator.

Advisory Committee. After a major advisor is chosen, this person and the student assemble an advisory committee. The committee consists of five graduate college faculty members, no more than four to be from the Division of Pharmacology, including the major advisor who serves as chairperson. This committee is responsible for adapting continued course work to the student's needs and for providing advice and evaluation at all points in the graduate education experience. Specifically, the committee evaluates the thesis protocol, the thesis, and performance at the thesis defense.

Comprehensive Qualifying Examination. Toward the end of the second year the student usually is expected to take the comprehensive qualifying examination. This examination can only be given with the recommendation of the division director after elimination of all deficiencies and completion of all required courses. The examination is designed to test general knowledge in pharmacology and it is administered by the Division of Pharmacology faculty. The level of performance on this examination determines if the student is admitted to candidacy for the Ph.D. degree. Students who are unsuccessful in gaining admission to candidacy for the Ph.D. degree may retest one time only, 6 to 12 months after the original examination date.

Thesis Research. Before the specific thesis research is begun, a detailed thesis protocol, including a literature review, must be presented to the Advisory Committee. At this time the student is required to defend orally

the research proposal by demonstrating an understanding of its goals and of the methods used to achieve those goals. When the committee is satisfied that these qualifications have been met, it recommends that the student begin the research project. Although the research is closely supervised by the major advisor, the student is expected to accept the responsibility for attainment of the research goals.

Once the research is complete, the student presents a reading copy of the thesis to the Advisory Committee for its evaluation and comments. The committee is responsible for offering suggestions to the student on how the work may best be presented in a thesis. Following this advice, the student completes the thesis and makes a formal presentation of it to the Advisory Committee as the thesis defense.

The awarding of the Ph.D. degree requires the demonstration of a capability for independent research and a contribution to scientific knowledge as judged by the Advisory Committee, the division faculty, the dean, and The Graduate College Council.

Research Activities

Research experience is being offered in the following general areas: drug effects on cellular metabolism, drug metabolism, pharmacogenetics, cardiovascular pharmacology, biochemical pharmacology, neuropharmacology, and clinical pharmacology. Current research projects that may be available to graduate students in the Division of Pharmacology include: mechanism of action of various redox drugs as investigated by studies of red cell metabolism; hereditary and acquired disorders of the pentose phosphate pathway, glycolysis, and hemoglobin; animal models of tardive dyskinesias; parkinsonism and related disorders; slow acetylation as related to drug effects and disease such as lupus erythematosus; clinical drug testing (Phase I and II) analgesic properties of cholinergic drugs in relation to the morphine receptor theory; pharmacology of primaquine and mefloquine; clinical pharmacology of methotrexate; prostaglandin metabolism in endotoxin shock; pharmacology of platelet activating factor; and clinical pharmacology of new antibiotics and new drug assays.

Service and Clinical Activities

The graduate division includes faculty members who are involved in service and clinical research activities. The service laboratory designs and performs selected drug assays on patient samples for clinical cases where the monitoring of drug levels is necessary for

effective therapeutics or to avoid toxicity. The Clinical Pharmacology Unit tests new drugs for toxicity and for effectiveness in human subjects. All students are encouraged to participate in these activities even though their major area of interest may lie elsewhere.

Division of Physiology

Philosophy

The program of the graduate Division of Physiology provides state-of-the-art training in the most quantitatively oriented areas of modern physiology and biophysics. To this end a limited number of students are invited to join particular research laboratories as predoctoral fellows, and most of the training occurs in this setting. The sole goal of the faculty is excellence in research and it expects to develop a nucleus of students who will become future leaders in the field.

Admission Requirements

Students who desire to specialize in this program are strongly advised to obtain a broad scientific foundation, including work in the related sciences. Courses in some or all of the following fields are suggested for attainment of this objective: physics, including electronics; chemistry, including physical chemistry; mathematics, including differential equations; molecular and cell biology or cell physiology.

An applicant who holds a degree from an accredited institution will be considered for admission on the basis of the following criteria:

- an undergraduate record of superior quality demonstrating proficiency in quantitative science;
- a well organized plan for graduate study and research compatible with expertise in the division;
- recommendations from at least three college faculty members acquainted with the character of the applicant;
- ability to function in a program stressing an independent approach to the acquisition of knowledge;
- other materials required by the division director.

The Graduate Record Examination (GRE) is recommended but is not required. Except in unusual cases, the minimum prerequisites for admission will be the attainment by the applicant of a 3.0 overall average (A=4.0) in

undergraduate studies with a 3.5 average in science courses, preferably including two years of physics or engineering, inorganic and organic chemistry, physical chemistry, advanced calculus, ordinary differential equations, cell biology or cell physiology.

Applicants for admission to the division will be initially evaluated by the division director and Advisory Committee. Considerations will include overall academic record, evidence of previous ability to pursue successfully independent studies, recommendations of the applicant's undergraduate faculty, and the description of the applicant's scientific research interests. The division director also will determine whether additional supporting evidence would aid evaluation of the application and, if so, will make appropriate arrangements with the applicant to submit such evidence.

Applications judged by the division director to demonstrate satisfactory credentials and interests compatible with the research facilities of the faculty will then be evaluated by all faculty members with expertise in the area(s) of interest of the applicant. Considerations in this phase will include not only academic ability but also the resources available to support research in the indicated area. An interview may be requested. Selection of applicants will be by invitation of a faculty member in the division willing and able to serve as the student's principal advisor and research sponsor after endorsement of the selection by the division director, The Graduate College Council, and the dean. In special circumstances, exceptions to this procedure may be made for students with unusual promise but with no firm commitment to a particular area of research. In such cases, the program director will serve as interim principal advisor. Finally, in the case that the division director would be the principal advisor of a student, the physiology department chairperson shall assume the duties of division director with respect to that student.

Curriculum

All students admitted to the division will be required to enroll in the medical physiology course as soon as possible after admission. The course will be supplemented in certain areas by an extensive outside reading list and/or special tutorial study with the faculty. In addition, each incoming student will also be expected in the first two years to enroll in at least seven courses, each involving tutorial study with one or more members of the faculty.

The student and his/her principal advisor (in consultation with the division director) will choose courses based in part on the student's previous formal training in subjects deemed essential to work in his/her area of interest. Most students will be required to select a minimum of seven courses from among those described in the course offerings of the Division of Physiol., but this requirement may be increased at the discretion of the principal advisor and division director.

It is anticipated that courses deemed essential to the student's graduate training by the division occasionally will not be available in the Division of Physiol. or other divisions of The Graduate College. In this case, arrangements will be made for the student to enroll in such courses at other institutions and performance in these courses will be required to be at the same level as for courses at Rush. In certain circumstances, a program of supervised independent study may be recommended as an alternative to particular course work.

The complete course plan, outlining all courses to be taken at Rush or elsewhere, will be prepared and signed by both the student and the division director before the end of the first quarter of residence.

Exceptions to the foregoing course requirements may be made by the division director in some instances for students entering the program with a postbaccalaureate degree and/or evidence of previous successful completion at other institutions of courses judged to be comparable to divisional required courses. Individual course requirements may be exempted on the basis of a past academic record, by the successful completion of a special examination covering the content of the required course. Such exemptions will not be made automatically solely on the basis of a past academic history but will be carefully judged on an individual basis by the division

director and Advisory Committee. Recommendations for exceptions made by the division director must have the approval of the dean.

Course Offerings. The following courses will be available, subject to demand and limitation, to graduate students within The Graduate College.

PHY 451 Physiol. I
PHY 452 Physiol. II
PHY 502 Introductory Membrane Biophysics
PHY 503 Physiol. of Striated Muscle
PHY 504 Neurophysiology
PHY 513 Cardiovascular Physiol.
PHY 514 Functional Neurophysiology
PHY 523 Circuit Theory and Practical Design
PHY 524 Linear Differential Equations and Transform Methods
PHY 525 Linear Systems Analysis
PHY 531/532 Physiological Modeling
PHY 555 Physiol. of Cellular Homeostasis
PHY 590 Special Topics in Physiol.
PHY 598 Introduction to Research
PHY 640 Applied Electrophysiology
PHY 641 Molecular Mechanisms in Control of Ion Permeability
PHY 651 Advanced Topics in Muscle
PHY 653 Problems in Synaptic Physiol.
PHY 655 Sensory Neurophysiology
PHY 656 Neural Correlates of Behavior
PHY 690 Research Topics in Physiol.
PHY 699 Thesis Research

Academic Policies

(Additional policies are listed in The Graduate College and in the Academic Information sections.)

Thesis Proposal Upon admission to the division, the student and his/her principal advisor shall begin to make preparations for a proposal upon which the student's original research project will be based. Such preparations will include intensive study of the literature in the student's field of interest, instruction in the basic laboratory skills necessary for professional development in the field, and any other requirements established by the principal advisor and division director, in addition to the course requirements discussed above.

No later than 18 months after admission, the candidate shall present to his/her thesis

committee an original proposal for contribution to knowledge in his/her area of specialization. It shall include an extensive review of the relevant scientific literature, a description of the technical aspects of the proposed studies, an outline of the anticipated experimental approach to the major problem of interest, and a discussion of possible results and their interpretation. The student will be expected to defend both his/her proposal and general ability to achieve professional competence before this committee.

The thesis committee shall have at least three members: the principal advisor; the division director; and, whenever possible, an individual outside the institution with national stature in the candidate's field of interest selected jointly by the candidate, principal advisor, and division director. In addition to evaluating the content of the thesis proposal, the outside member shall have a responsibility to maintain close and frequent contact with the student and principal advisor and to advise the division director concerning the progress of the academic program. Ordinarily, the thesis committee shall be constituted as soon as possible after admission of a student to the division.

The thesis proposal may be submitted to the faculty prior to completion of course requirements in order to enable research activity to begin, but the student will not be formally admitted to candidacy until this is satisfactorily completed.

Candidacy Upon acceptance of the thesis proposal, the student shall be admitted to candidacy for the Ph.D. and shall be expected to devote fully his/her energies to the program. A minimum residency requirement of one calendar year following admission to candidacy must be met by all students unless special exceptions are granted by the division director and dean. The principal advisor shall make frequent reports to the division director concerning the student's progress, and should either faculty member or the candidate feel it appropriate, the thesis committee can be called into session to judge the student's continued participation in the graduate program or to determine possible alterations in the area of his/her research efforts. In addition, the student and principal advisor will be expected to consult periodically with the other committee members who may also request the division director to call formal meetings of the thesis committee.

Conflicts between the student and/or any members of the thesis committee not resolvable by the full committee may be referred to the Advisory Committee of the division or higher authority as specified in the policies and procedures of The Graduate College.

The degree of doctor of philosophy is given in recognition of high attainment and ability in a particular field of scientific research as evidenced by submission of a thesis showing power of independent investigation and forming an actual contribution to existing knowledge. Such thesis will be submitted to the candidate's thesis committee for review and defended orally at least three months before the degree is granted. The thesis committee will ordinarily request an evaluation of the candidate's thesis by a scientist of national stature not affiliated with Rush University.

Acceptance of the thesis by the thesis committee will be reviewed by The Graduate College Council and the dean, along with the candidate's entire academic performance in The Graduate College. Determination of completion of all requirements will result in the dean's recommendation that the degree be awarded at the next scheduled commencement exercises of Rush University.

Should the candidate not have submitted a thesis three years after admission to candidacy, the thesis committee shall be convened to evaluate the candidate's progress, and, if proper, to suggest alteration in the program.

Research Activities

Members of the division carry out research in three overlapping areas: transport and electrical properties of membranes and complex tissues; motor and sensory processing in the mammalian nervous system; and circulatory phenomena.

Membrane Properties. Both the transport and the excitability properties of membranes are studied.

The properties of the digitalis-receptor of the heart, a component of the $Na + K$ pump of the cardiac muscle membrane, are also studied. One project is focused on the physiological regulation of this system by hormones. Specifically, changes in cardiac performance that accompany altered thyroid function have been shown to result from altered synthesis of $(Na + K)ATPase$ in the cardiac muscle membrane. In a related study the autonomic nervous system was shown to regulate $(Na +$

K)ATPase via modulation of cyclic nucleotides. Finally, a technique for the automatic, continuous assay of (Na + K)ATPase is being developed.

The basic ionic mechanism underlying the action potential is being studied in voltage-clamped giant axons. Previous investigations have shown that when examined in sufficient detail, the kinetics of sodium activation and inactivation show striking departures from the behavior expected for a system consisting of noninteracting, voltage-sensitive gates such as those implicit in the classical Hodgkin-Huxley formulation. Presently, both traditional voltage-clamp and internal perfusion techniques, and new procedures for noise analysis and measurements of intramembrane charge movements are being used to further elucidate the molecular details of the sodium and potassium channels.

Problems in synaptic physiology are divided into two classes: the method by which transmitters are released from the prejunctional element, and the nature of the biophysical interaction with the postjunctional receptor giving rise to changes in membrane permeability. Both questions are being actively investigated.

Nerve cell bodies exhibit a complexity of behavior not usually seen in the axons they support and they often contain quite unique sorts of ionic channels. In order to understand such behavior, neurons from simple invertebrate nervous systems are being quantitatively examined using voltage-clamp techniques in much the same way as such procedures have been applied to the problems of nerve excitation.

Skeletal muscle fibers have a structure considerably more complex than nerve axons, including invaginations of the surface membrane that form a tubular system running almost transversely across the fiber. The structural and electrical properties of skeletal muscle fibers are being studied in some detail, and a detailed model of the electrical properties expected from the branching tubular system is being constructed by measuring such properties using methods of linear electrical circuit theory. Techniques include both sinusoidal and stochastic analysis. The theory and measurements are being extended to try to predict the shape and conduction velocity of the propagating action potential, the natural electrical signal that initiates contraction. Attention is also being paid to the mechanism by which the action potential occurring

across the membranes of the tubular system initiates contraction.

Artificial bilayer membranes may be constructed from a mixture of a surfactant and an alkane and various transport molecules added to produce effects similar to those seen in living tissues. The physical basis of membrane transport can then be studied in a simple system of defined composition and compared with natural phenomena.

Information Processing in the Central Nervous System. The processing of visual information by the mammalian nervous system is being studied in both human and experimental human preparations. The laterality of information processing in female subjects with Turner's syndrome is being investigated through the recording of visually evoked responses in the electroencephalogram. In animal models visual processing is being studied with microelectrode techniques (extracellular action potentials and evoked population responses); of particular interest here is the effect on the visual system of such homeostatic imbalances as hyperthermia and hypoxic hypoxia.

The control of motor behavior by the nervous system is also being studied in normal human subjects. Responses to different kinds of stimulus-induced errors introduced into the performance of various motor actions are being monitored. The latencies of these responses will provide information as to the CNS level at which they are generated, and their amplitudes will provide a measure of the general level of excitability at different segmental levels. By studying different types of motor actions and using different stimuli, singly and in combinations, it will be possible to uncover information about the motor mechanisms responsible for the coordination of voluntary and involuntary (reflex) behavior.

Epileptic seizures can be induced in animals by a variety of techniques. Such animal models are being used to investigate the basic mechanisms underlying this behavior and the ways in which seizures may be prevented from developing or controlled. In addition, basic mechanisms of information processing in the mammalian visual and association cortex are being investigated with the aim of elucidating cellular correlates of learning. Invertebrates such as snails and crayfish have nervous systems in which individual cell bodies are large and easily identified from one animal to another. Electrodes may then be inserted into such cells and recordings made

while the animal is exhibiting a particular response to learn more concerning the neural basis of complex behavior patterns.

Circulatory Phenomena. Three separate projects are under way in this area. The effects of pulsation on blood flow in the laminar transition region are being studied. The pulse has been found to cause an early transition to turbulent flow, an effect that is strongly dependent on pulse amplitude but only slightly affected by pulse frequency. Furthermore, the effect is inversely related to tube length, being unimportant in tubes having the same geometry as actual blood vessels. These results indicate the importance of vessel geometry in protecting the circulation against excessive energy losses from turbulence. A

second project in this area involves a study of the microcirculation of skeletal muscle. Of particular interest here is the distribution of flow and the transport of materials that occurs during exercise.

Finally, the responses of the cerebral vasculature to conditions of hypoxic hypoxia are being investigated. Local blood flow, tissue oxygen levels, and neural function (visual evoked responses) are being monitored in an attempt to determine the mechanism(s) responsible for the high sensitivity of the cerebral cortex to oxygen lack. Also of interest are the occurrence and mechanism of oscillations in tissue oxygen tension recorded in some parts of the brain.

Division of Psychology

Philosophy

The Division of Psychology offers a program of study leading to a Dr. of philosophy degree in psychology with specialization in health psychology. Within the scientist-practitioner model, the goal of the program is to integrate basic knowledge of human behavior across the life span with specialized understanding of psychological issues in health and illness. Students who enter the program will pursue a research program that provides a contribution to the understanding of behavior. They may also elect training in the clinical skills which will prepare them to perform as professionals in health psychology.

Specific objectives of the program are:

- To provide a foundation in the basic theory and empirical findings of psychology with special emphasis on psychological processes as they relate to the prevention, diagnosis, treatment, and management of physical disease.
- To train psychologists as scientific investigators with the research skills to study behavior as it relates to effective health care.
- To prepare professionals with the knowledge and skills to address the psychological and emotional needs of medical patients.

Admission Requirements

In addition to the admission requirements established by The Graduate College, the division requires the results of the Graduate Record Examination (GRE) aptitude test and the advanced test in psychology. A personal interview may be requested. Completed applications should be submitted to The Graduate College by February 15.

Admission to the program is limited and competitive, with students admitted only once each year in the fall term. Students from varied backgrounds whose career commitment is to health psychology are encouraged to apply. Although a background in psychology and the biological sciences is desirable, there are no specific requirements for admission regarding undergraduate preparation. Students who have graduate training may apply and, if admitted, their class standing will be determined on an individual basis.

Applicants will be evaluated on the basis of their academic record, letters of recommendation, their personal statement of career goals and aspirations, and their GRE scores. It is the responsibility of the Graduate Committee to review all applications and recommend acceptable candidates. The authority for admission to the program rests with the entire faculty of the graduate Division of Psychology, The Graduate College Council, and with the dean.

Curriculum

The curriculum is designed to provide a foundation in the science of psychology while permitting students the flexibility to pursue individual interests in health psychology. Completion of a core program in the basic theory and methods of psychology, with a concentration in biological psychology and normative behavior across the life span, is required. Depending upon their area of interest, students pursue advanced study and research leading to a thesis in a specialized area in

health psychology. There is provision for elective courses throughout the graduate experience to permit diversity in individual programs and to provide the opportunity for involvement in research throughout graduate training. Study in the biological sciences and other cognate areas relevant to the student's program is encouraged.

Additional requirements for those students who elect clinical training include a clinical core course sequence and supervised practicum experiences. Required practicum experiences include training in psychological assessment and intervention skills, and a specialty practicum in the evaluation and management of behavioral problems as they occur in medical populations. Areas of clinical specialization offered are as follows:

- Health Psychology
- Pediatric Psychology
- Neuropsychology
- Sleep Disorders

Course requirements for all students include the following:

- General Psychology Core

PSY 501 Psychology of Learning

PSY 521 Biological Bases of Behavior

PSY 522 Psychophysiology

PSY 531 Developmental Psychology I: Infancy through Adolescence

PSY 532 Developmental Psychology II: Adulthood and Aging

PSY 541 Theories in Social Psychology

PSY 545 Health and Illness Behavior

PSY 557 Human Neuropsychology

- Statistics

PSY 505 Biostatistics I

PSY 506 Biostatistics II

PSY 507 Biostatistics III

Additional requirements for clinical students include:

- Clinical Psychology Core

PSY 551 Theories of Personality

PSY 553 Psychopathology

PSY 571 Principles of Psychotherapy

PSY 572 Principles of Behavior Change

PSY 575 Assessment of Intelligence

PSY 576 Assessment of Personality

PSY 605 Professional Issues

PSY 621 Clinical Health Psychology

- Clinical Practicum

PSY 611, 612, 613 Practicum in Assessment and Intervention Skills I, II, III

PSY 616, 617 Practicum in General Clinical Psychology I, II

PSY 629, 639, 649, or 659

Practicum in health psychology specialty

Academic Policies

(Additional policies are listed in The Graduate College and in the Academic Information sections.)

The doctoral degree program in psychology requires a minimum of 144 hours beyond the bachelor's degree, equivalent to four years of academic preparation. Students are expected to maintain full-time enrollment during the academic year. For those students who elect clinical training, one additional calendar year of clinical internship training is required.

Assessment of Progress. The graduate program director, in consultation with the Graduate Committee of the division, functions as an academic advisor to the student, planning the course schedule and monitoring progress in yearly conferences. Data for assessment of student progress include written evaluation of work by faculty research and clinical supervisors as well as academic records. When a student has defined an area of research concentration, an appropriate major advisor will be identified within the Division of Psychology. It is the role of the major advisor to guide the student in thesis research and to serve as chairperson of the thesis committee.

Comprehensive Examination. A written examination designed to assess the student's knowledge of general theory and methods of psychology will be taken after the first two years of satisfactory work is completed.

Thesis. Following successful completion of the comprehensive examination, the student will begin work on a thesis, according to the following agenda.

- Selection of a thesis committee in consultation with the major advisor.
- Development of an acceptable research thesis proposal.
- Oral preliminary examination in reference to the rationale, methods, and goals of the thesis proposal.
- Admission to candidacy for the doctoral degree, contingent upon approval of the proposal by the student's thesis committee.
- Completion of thesis research.
- Oral defense of the thesis.

Service and Clinical Activities

Practicum experiences of many kinds are available within the hospitals and programs of the Medical Center. Most faculty of the graduate division have clinical responsibilities in the Department of Psychology and Social

Sciences. The department is currently providing clinical service in numerous areas: psychodiagnostic services; general clinical health psychology consultation; neuropsychology consultation; consultation to the Rush Cancer Center, the Johnston R. Bowman Health Center for the Elderly, and the cardiology service; clinical sleep disorders evaluation and management; and programs in chronic headaches, obesity and low back pain. Programs provided through other departments include pediatric psychology, outpatient treatment of emotionally disturbed children, student counseling, counseling with chronic neurologic patients, and evaluation of legal offenders. In addition, the department offers a clinical internship program for the training of clinical psychology doctoral candidates from other universities in the areas of pediatric psychology, health psychology, and neuropsychology.

Research Activities

Faculty research interests cover numerous areas within health psychology, including infancy and aging, social and behavioral aspects of chronic disease, brain-behavior relationships, and health services delivery. Current projects include: studies in chronic pain syndromes and stress management, neural substrates of learning and memory, memory disorders, psychological disturbance in neurological disease, the effect of life stress on sleep and dreaming, management of sleep disorders, psychological aspects of normal and pathological aging, substance abuse and EtOH rehabilitation, psychophysiological assessment of high-risk infants, obesity, social networks and health care behavior, and mental health service delivery in health maintenance organizations.

COURSE DESCRIPTIONS

Explanation of Course Descriptions

Discipline Abbreviations Courses listed and described in this section are expected to be offered by the faculty of Rush University for the 1984-85 academic year. The courses are listed alphabetically according to the discipline to which the course content is most closely related. These disciplines do not necessarily reflect a department in the University or in the Medical Center. A three-character abbreviation for the discipline precedes the course number for each course listed.

Course Numbers A three-digit course number follows the course abbreviation. It indicates the level of offering for that course as shown below:

<i>Course Numbers</i>	<i>Level of Offering</i>
300-399	Undergraduate Third Level
400-449	Undergraduate Fourth Level
450-499	Dual Level—may be taken for undergraduate or graduate credit
500-599	Graduate Level
600	Post-Master's Level Residency
601-699	Doctoral Level

Course Content A course title is followed by a brief description of course content and information pertaining to the course:

Course Prerequisites. Specific prerequisites are noted for some courses. Where no prerequisite is listed, it is assumed that students enrolling will have an adequate background on which to build. Students who have any questions about preparation should consult with the instructor of the course. If corequisite is

listed, both courses must be taken during the same term.

Quarter in which course is given. FA(II), WI(nter), SP(ring), or SU(mmer) designates the quarter in which the course is offered each year.

Course credit. The number of quarter hours of credit for a course appears between parentheses. In many cases a series of three numbers is shown, e.g. (2-3-3). The first numbers refer to the hours per week of lecture or seminar; the second, to number of hours in laboratory or clinical setting; the third, to quarter hours of credit. If any of these is variable, it is replaced with "v".

Clock hours (Rush Medical College). Clock hours appear between brackets. Since students in other colleges may cross-register for courses offered by Rush Medical College, the credit hour value of the course may also appear.

Clinical weeks (Rush Medical College). The number of weeks that students normally take each clinical course is indicated. These weeks also appear on the academic record.

Instructor. When known, the instructor's name is provided.

Independent Study Courses Students may enroll in an independent study course in any discipline of the University under the direction of the appropriate faculty member with his/her written permission, and the approval of the program director.

The course number 449 will be used for academic independent study for undergraduates and 599 for independent study for graduate students, with the appropriate discipline prefix.

ANATOMY

ANA 451

Histology. The microscopic anatomy of cells, tissues, and organ systems of the human body is studied through laboratories, lectures, and self-instructional material. Fine structural specializations relating to tissue function are emphasized along with the histological architecture that characterizes each. FA (3-4-5) [82 hours] Colgan.

ANA 455

Neuroanatomy. The morphological organization of the central nervous system is explored through lectures, preceptorials, laboratory dissection, and microscopic examination of the human brain and spinal cord. Functional and clinical correlations are emphasized. (5-4-6) Kerns.

ANA 462

Introduction to Neurobiology. The development, morphology, and functional significance of the human nervous system are presented in lecture and by demonstrations. Fixed human brain preparations and series of neurological slides are used as visual aid materials. Prerequisite: courses in human biology or anatomy and physiology or comparative anatomy. Permission of instructor. FA (2-2-3) Kerns, Maibenco, Schmidt.

ANA 465

Gross Anatomy. The structure and function of the human body are examined topographically through laboratory dissection, lectures, and preceptorials. Laboratory examination is conducted regionally and clinical correlations are emphasized. FA (v-v-5)

ANA 471

Human Anatomy I. The structure and function of the human body are examined topographically through laboratory dissection, lectures, and preceptorials. Laboratory dissection is conducted regionally, encompassing the thorax, abdomen, pelvis, perineum, head and neck, back, and extremities. Radiological anatomy, living anatomy, and clinical correlations are emphasized.

Embryology. The fundamentals of human development are examined from gametogenesis and fertilization through the formation and differentiation of the germ layers, organogenesis, and morphogenesis of the fetus. Congenital malformations and experimental embryology are introduced where feasible. FA (5-6-7) [100 hours] Schmidt.

ANA 472

Human Anatomy II. Continuation of Anat. 471. Embryology is introduced where pertinent. WI (5-6-7) [90 hours] Schmidt.

ANA 511

Comparative Cytology of Tissues. Cellular structure will be studied in relation to the organization of selected tissues. Emphasis includes application of special techniques, and the evolution of contemporary views on structure and function. Prerequisite: Anat. 451. SP (3-0-3) Colgan, Hughes.

ANA 513

Anatomy of the Eye. The histology and embryology of the eye will be reviewed in detail as the basis for discussion of selected topics. These will include: congenital malformations, physiology, and pharmacology of selected ocular systems; vessels and nerves of the orbit; and regional structure and function. SP SU (4-0-4) Hughes.

ANA 521

Experimental Morphogenesis. Classical and contemporary studies of embryonic development and regeneration will be analyzed for common themes. With this foundation, students will be challenged to design experiments by which insight in differences and similarities between the paradigms may be further elucidated. Where feasible, the student may be invited to elaborate the experiment as an independent laboratory research project. Prerequisite: Anat. 451. (3-v-4) Dinsmore, Schmidt.

ANA 522

Tissue Repair Mechanisms. The ability of the several tissues of the vertebrate body to repair themselves is quite variable. The repair potential and mechanisms of each tissue will be considered separately and in detail through discussion of current journal articles. A final research paper on a selected area in this field is required. Prerequisite: Anat. 451. (3-0-3) Dinsmore, Schmidt.

ANA 524

Morphologic and Physiologic Adaptations in Development, Maturity, Aging, and Injury. Analysis of biologic structure and function during vertebrate growth and development and the response of these factors to aging and trauma. WI SP (3-2-4) Maibenco.

ANA 531

Anatomy of the Synovial Joint. The gross and microscopic anatomy of the synovial joint will be examined in detail as a basis for discussion of selected topics. Topics will be arranged to meet individual student needs and may include: physiology and biochemistry of articular cartilage, subchondral bone, synovial membrane and other associated structures. Permission of instructor. (v-v-v) Williams.

ANA 541

Topics in Muscle Biology. A seminar format will be employed for critical examination of papers relating to the biology of muscle in one of two areas: (1) current topics in excitation-contraction coupling, contractility, and energetics; or (2) review of the neuromuscular junction followed by examination of experimental systems dealing with the trophic maintenance and the development of muscle fiber types. Contributions of nerve injury to the pathogenesis of muscle disease will be considered. Permission of instructor. FA (3-0-3) Colgan, Hughes, Kerns.

ANA 560

Topics in Neurobiology. A seminar format will be utilized to review selected topics and original papers within one of the following units of study:

neurogenesis, plasticity, synaptic organization of neural systems, or current methods in neuroanatomy research. SP (4-0-4) Durica, Hughes, Jacob, Kerns.

ANA 581

Approaches and Methods in Morphologic Research. Study of how sources of information, methods of investigation, and technical procedures are applied to anatomic research. Demonstrations of techniques and student laboratory participation are included. SU (2-4-4) Staff.

ANA 591

Preceptorials in Anat. Laboratory experience is provided in conjunction with related preceptorials on selected topics in the anatomical sciences. Prerequisites: Anat. 451, 472. SU (2-4-4) Staff.

ANA 592

Concepts in Morphology. Seminars and tutorials offered by faculty and guests on topics of special interest in the morphological sciences. FA WI SP SU (v-v-v)

ANA 595

Journal Club. (v-v-v)

ANA 599

Independent Study. Selected topics in anatomical science. (v)

ANA 601

Surgical Anat. A laboratory program of regional dissections and demonstrations. The applied, clinical, and surgical aspects of anatomical regions are emphasized. Prerequisite: Anat. 471-2 or equivalent. FA WI SP SU (0-v-v) Doolas, Schmidt.

ANA 602

Advanced Anat. A laboratory program of special dissections and demonstrations on selected regions of the body: thorax, abdomen, pelvis and perineum, upper and lower extremities, and the CNS (spinal cord and brain). Prerequisites: Anat. 451, 472, or equivalent. FA WI SP SU (0-v-v) Schmidt.

ANA 699

Research. Research devoted to the preparation of a thesis in partial fulfillment of the requirements of the degree program. FA WI SP SU (0-v-v) Staff.

BEHAVIORAL SCIENCE

BHV 351

Rape Victim Advocacy. Identification of the theoretical framework for rape intervention and discussion of various issues faced by an individual experiencing rape trauma syndrome. Graduate students enroll in Behavioral Science 551. (2-0-2)

BHV 402

Advanced Behavioral Science I. Behavioral perspectives are used to analyze selected concepts. The impact of sociocultural, interpersonal, physiologic, and intrapsychic influences are explored. Prerequisite: Biological Sciences 302. (4-0-4)

BHV 403

Advanced Behavioral Science II. Continuation of Behavioral Science 402. Prerequisite: Behavioral Science 402. (4-0-4)

BHV 425

Critical Concepts in Growth and Development of Children and Adolescents. In-depth exploration of theories of growth and development and the application to working with children from birth to 16 years of age. Graduate students enroll in Behavioral Science 525. (3-0-3)

BHV 451

Fundamentals of Behavior. During the first five weeks, a series of lectures provide the basic conceptual framework and terminology used to describe and explain human behavior in three areas: biological, psychological, and sociocultural. Primary emphasis throughout is on the ways such types of influences affect the lives of patients. A matrix of special topic seminars (Behavioral Science 473) is presented during the second five weeks from which students select two. WI [21 hours] Zeldow.

BHV 453

Behavior in the Life Cycle. Introduction to a clinically based study of the individual life cycle. Emphasis is on the provision of a normative account of development from physical, psychosocial, and sociological perspectives. During the second five weeks of the quarter students choose one special topic seminar (Behavioral Science 473). SP [26 hours] Zeldow.

BHV 465

Assertiveness Training. Comparison of nonassertive and aggressive behaviors and their consequences. Includes intensive practice in both assertive and active listening skills. FA WI (2-0-2)

BHV 472

An Introduction to Psychodrama and Sociometry. An introduction to a wide variety of techniques that enhance psychosocial assessment skills and promote empathy, social interaction, and group building. (2-0-2)

BHV 473

Behavioral Science Minicourses. A matrix of special topic seminars which allows a concentrated introduction to a significant area of behavioral study. The following descriptions, presented in recent years, are typical of those presented each year. (1 or 2) [10 or 20 hours]

Alternative Modes of Healing. Approaches to the facilitation of healing as practiced by such treatment modalities as osteopathy, chiropractic, spiritual healing, naprapathic, and reflexology, as well as traditional branches of medicine. Presentations will be made by representatives of alternative modes of treatment.

Behavioral Change Strategies of Medical Practice. The application of the behavioral model of assessment and intervention to medical problems including multiple strategies to increase compliance with medical

regimes; techniques such as relaxation therapy, systematic desensitization, biofeedback, cognitive-behavior modification; and stress management in a medical setting.

Family Assessment. The family systems approach is used to acquaint the student with the family as an object of study, assessment, and treatment including the assessment and treatment of mental and psychosomatic disorders.

Human Sexuality and Health Care. The sexual response in men and women, gender role development, taking a sex history in clinical practice, sex and medical illness, and basic aspects of sex therapy in general practice are studied in an attempt to help the prospective physician provide better care to those patients either who present themselves with sexual problems or in whom sexual difficulties are uncovered.

Introduction to Death and Dying. An introduction to selected issues which underlie effective psychosocial care of the terminally ill person and his/her family including assessment of central psychodynamics in the patient and family; the role of the care giver's subjective experience in terminal care; and major theoretical perspectives in the literature in the field.

Neural Basis of Learning and Memory. Examination of experimental approaches used to study the neural basis of learning and memory. Included will be neurophysiological, biochemical, pharmacological, and behavioral studies which will range from detailed analyses of simple behaviors in simple systems to complex learned behaviors in man.

Obesity. The epidemiology, genetics, and social psychology of obesity including the metabolic effects, factors influencing appetite regulation, and behavioral, dietary and other approaches to treatment.

Pain. The symptoms of pain and its alleviation as a goal of treatment are studied along with the less obvious relationships to physical disease processes including pain as a complication of treatment.

Parenthood and Child Abuse. The basic emotional and practical issues of parenting and the circumstances under which parents come to abuse their children with special attention given to why some parents abuse and how professionals can work with them.

Physician on Stage and in Fiction. An investigation of distinguished nineteenth and twentieth century plays and novels which feature the physician as a major character. Works by G. B. Shaw, Eugene O'Neill, Friedrich Durrenmatt, Tennessee Williams, Henrik Ibsen, and Sinclair Lewis highlight the physician in crises, profile scientific men, portray the psychiatrist as character, and present the American regional practitioner. Same as Humanities 462.

Psychology and Psychopathology of Aging. The normal and psychopathological processes of aging and the physician's role in the total health care of the elderly patient. Topics include normal psychology; interviewing techniques; depression, paranoia, and

organic brain syndromes; psychological and pharmacological treatments; and family issues regarding the elderly patient.

Psychology of Young and Middle Adulthood. A theoretical and empirical inquiry into the nature of adult development including psychodynamics of vocational choice, stability and change in personality, sex differences in adult development, and criteria of maturity. Theorists to be studied include Kenniston, Erikson, Vaillant, Levinson, and Gilligan.

Psychology, Psychiatry and the Law. An examination of some of the complex and controversial issues in the application of psychology and psychiatry to the law as well as the impact of mental health on the legal system including treatment and evaluative issues, the role of attorneys in the mental health system, patients' rights and professional issues such as court testimony and malpractice.

Psychophysiology of Normal and Abnormal Infants. The close relationship between processes of biological and behavioral development during the first two years is explored in depth. Included are the study of behavioral milestones of normal infants; premature birth and perinatal anoxia and hypoxia; and the special problems of parenting sick or behaviorally abnormal infants. The range of deficiencies of high-risk or abnormal infants is contrasted with the behavioral patterns of mentally retarded and learning disabled children.

Sleep: Normal and Abnormal. A general introduction to the physiology and psychology of sleep including both normal sleep and dream patterns and the deviations which occur with various medical and psychiatric problems. Also covered are the diagnosis and treatment of the insomnias, hypersomnias, and abnormal behaviors associated with sleep.

Sociology of Substance Abuse. A definition of concepts that are necessary to an understanding of drug-related problems in American society including the nature, extent, and epidemiology of drug use, and strategies for intervention and prevention programs. Emphasis will be placed on the sociological perspective vs. others that are used, i.e., pharmacological, psychological, medical, and legal.

Sociology of the Hospital. Topics covered are what organizational variables influence the quality of patient care; what dilemmas arise when one attempts to provide clinical services in a bureaucratic system; how external groups exert social control over hospitals; what the role of the patient and his/her family is in the social structure of the hospital and what changes are occurring (e.g., Patients' Bill of Rights); and how social and organizational factors that relate to illness and patient care can be modified to increase the quality of care provided.

Stress and Illness. The history of research on stress in relation to health and illness is reviewed, and the evolution of the concept of stress to present day theories is traced. Hormonal parameters of stress, physiological indications of and responses to stress, cognitive

responses to stress, coping mechanisms, and life event relationships to illness are covered. In addition, the research linking stress to specific diseases and illnesses is discussed, including implications for treatment of the individual patient.

Work and Health. An examination of the epidemiologic distribution of work-related health problems, the organizational factors and their relation to occupational differences, and the current attempts at organizational changes which are aimed at lowering the level of such pressures.

BHV 501

Behavioral Dynamics. Symbolic interaction is used to develop an understanding of individual behavioral dynamics as well as the social worlds of illness, health, and health care delivery. FA (4-0-4)

BHV 503

Theories of Deviance. Exploration of contemporary sociological theories of deviance with emphasis on interactional and labeling processes. Prerequisite: introductory sociology course. (2-0-2)

BHV 522

Application of Behavior Therapy. Through active participation in seminars, application in behavior intervention and behavior therapy will be explored. SP (2-0-2) Green.

BHV 523

Crisis Theory/Intervention and Management. Designed to expand the students' knowledge of crisis theory and to provide them with crisis intervention models applicable for clients in various settings. FA SP SU (2-0-2)

BHV 524

Theories of Personality. An examination of the major traditions in personality theory and research: psychoanalytic, trait, social learning, and phenomenological. Empirical research relating to personality consistency and behavioral specificity is reviewed. Same as Psychology 551. (3-0-3)

BHV 525

Critical Concepts in Growth and Development of Children and Adolescents. An in-depth exploration of theories of growth and development and the application of this information to working with children from birth to 16 years of age. (3-0-3)

BHV 532

Stress Management for Health Professionals. An exploration of the concept of stress and stress management techniques with particular emphasis on their relevance for health professionals. SP (2-0-2)

BHV 541

Self-Destructive Behavior. An examination of a variety of self-destructive behaviors within society with special attention given to the needs of different age groups. (2-0-2)

BHV 551

Rape Victim Advocacy. The student will identify the

theoretical framework for rape intervention and design treatments for an individual experiencing rape trauma syndrome. (3-0-3)

BHV 561

Small Group Dynamics. This course focuses on theoretical perspectives of small groups, assessment of group characteristics, and consideration of selected problems in their use. FA SP (2-v-3)

BIOCHEMISTRY

BCH 411, 412

Clinical Biochem. I, II. Courses on the analytical and biochemical basis of methods used for chemical analysis of body fluids as related to diagnosis and treatment of disease. Topics discussed include blood sugar, carbohydrate tolerance tests, renal function tests, plasma electrolytes, blood gases, proteins, enzymes, liver function tests, cholesterol, and lipids. Critical evaluation of methods is emphasized. (4-0-4) (4-0-4)

BCH 413

Clinical Chemistry III. These tests and topics are covered: chemical hematology, special proteins, vitamins, biogenic amines, elementary toxicology, thyroid function tests, and steroid methods. Principles underlying automated and computer application methods will be discussed. Prerequisites: Biochem. 411, 412. (3-0-3)

BCH 471

Medical Biochem. I. The chemistry and metabolism of biologically important compounds, amino acids, and proteins; nucleic acid and protein synthesis; bioenergetics; biochemical function of enzymes; common pathways of metabolism; and carbohydrate, lipid amino acid metabolism. Additional topics include: the integration of cellular metabolism; regulation of pH and electrolyte balance; regulation of whole body metabolism; muscle biochemistry; biochemical nutrition; and connective tissue biochemistry. FA (4) Bezkorovainy.

BCH 472

Medical Biochem. II. Continuation of Biochemistry 471. WI (6) Bezkorovainy.

BCH 473

Medical Biochem. III. Continuation of Biochemistry 472. Medical students must pass Biochem. Subsection of the NBME in order to receive a passing grade. SP (2) Bezkorovainy.

BCH 501, 502, 503

Fundamental Biochem. for Graduate Students. Involves Biochem. 471, 472, 473, plus two additional, weekly, seminar-type sessions to discuss additional reading assignments. FA WI SP (5) (6) (5)

BCH 531, 532

Advanced Medical Biochem. I, II. Designed for first-year medical students who are excused from Biochem.

Courses

471-73 on the basis of demonstrated proficiency. Content: application of biochemical principles to the analysis of tissue function and diseases. WI SP (4) (2) [60 hours over two terms] Bezkorovainy.

BCH 581

Biochemical Research Techniques for Graduate Students. (4) Staff.

BCH 590

Special Topics. One topic to be given each quarter, including summers. Cycle repeats every two years. Anticipated topics to be covered and instructors are: intermediary metabolism (lipids and carbohydrates), Hayashi, Lange; nitrogen metabolism (proteins and nucleic acids), Bezkorovainy, Morley, Sky Peck; biochemistry of connective tissue, Kuettner, Kimura, Thonar, Schwartz; biochemistry of macromolecules (acids and bases, enzymology, physical biochemistry of macromolecules), Sky Peck, Thonar, Bezkorovainy, Kimura; and nutritional biochemistry, including vitamins and metalloelements, Gotterer, Sky Peck, Bezkorovainy. Topics may be deleted, combined, or other topics added at the discretion of the Graduate Program Committee. (3)

BCH 595

Seminar and Journal Club. Attendance at all seminars and completion of all journal article assignments are required of biochemistry students. (1)

BCH 602

Biochemistry of Disease. The alterations of metabolic pathways in various organs and tissue compartments are studied in relation to organ, metabolic, and genetic pathology. The biochemical derangements are illustrated with case demonstrations. Topics are selected and discussed with emphasis on current research work. The facilities of the clinical chemistry laboratory are available to illustrate biochemical changes and their significance. Prerequisite: Biochem. 471. (2-0-2) Morley.

BCH 611, 612, 613

Clinical Biochem. Lecture I, II, III. The sequence will include concepts of clinical biochemistry practice, concepts and principles of toxicological analysis, statistics, laboratory management, budgeting, and personnel matters. (3) (3) (3) Mattenheimer, Dubin.

BCH 614, 615

Clinical Biochem. Laboratory I, II. There will be six contact hours per week which will provide the student with knowledge of methodology in toxicology and drug analysis, automation, instrumentation, quality control, interpretation of test results, and use of data processing equipment. (3) (3) Mattenheimer, Dubin.

Note: Biochem. 611-15 are designed to meet the clinical biochemical accreditation requirements.

BCH 621, 622, 623

Lectures in Cell Biology and Supramolecular Biochem. I, II, III. (3) (3) (3) Aydelotte, Pauli.

BCH 624, 625

Tissue Culture and Electron Microscopy Laboratory I,

II. There will be six contact hours per week. (3) (3) Aydelotte, Pauli.

BCH 651

History of Science. Elective. (2) Staff.

BCH 652

Science, Law, and Ethics. Elective. (2) Staff.

BCH 699

Research in Biochem. (v)

BIOLOGICAL SCIENCES

BIO 301

Advanced Biological Sciences I. Content areas cover body defense mechanisms and reproduction. Lectures emphasize human physiology and pathophysiology. Prerequisite: Nursing 301. (4-0-4)

BIO 302

Advanced Biological Sciences II. Content covers maintenance of cellular environment. Lectures emphasize human physiology and pathophysiology. Prerequisite: Nursing 301. (4-0-4)

BIO 521

Biological Basis of Clinical Therapeutics. Emphasis is on understanding of the physiological and biological basis and meaning of assessments and therapies related to body regulation of certain aspects of internal cellular environment. Prerequisite: Physiol. 555. WI (5-0-5)

BIO 523

The Biological Basis of Nervous System Function and Dysfunction. Lectures emphasize an understanding of the physiological basis of nervous system function and dysfunction. (2-0-2)

BIO 531

Biological Aspects of Perinatology I. The major focus of this course is exploration of basic reproductive physiologic concepts as they pertain to the maternal-fetal unit. WI (4-0-4)

BIO 532

Biological Aspects of Perinatology II. The major focus of this course is the study of basic biological concepts which apply to aberrant maternal-fetal interactions in the intrapartal and postpartal periods. Prerequisite: Biological Sciences 531 and/or permission of instructor. SP (4-0-4)

CELL BIOLOGY

CEL 501

Cell Biology. Study of ultrastructure and function of the cell organelles; structures covered include the plasma membrane organization, cell-to-cell communication, and cell surface immunoreceptors. Also covered are the mitochondria and phosphorylation, the endoplasmic reticulum, golgi apparatus and cell secretion, the cytoskeleton and molecular basis of motility,

and the nucleus and cell division. WI (2-0-2)
B. Eisenberg.

CEL 512

Scientific Basis of Electron Microscopy. This course provides facts about electron microscopy where possible and practical approaches where not. Techniques include: the chemical basis of fixation; size and shape changes during fixation, dehydration, and embedding; plastic and frozen thin sectioning; selective staining and immunocytochemistry; and autoradiography. Also discussed will be the physics of electron optics and the theory of transmission, scanning, high voltage, and x-ray detector electron microscopy. Permission of instructor. SP (2-0-2) B. Eisenberg.

CEL 522

Electron Microscopy Laboratory. Practical techniques of electron microscopy are addressed. Students dissect, fix, and imbed tissue and learn the use of the electron microscope. The goal of the course is the preparation of electron micrographs of research quality. Extensive time for practical use of the equipment will be available. Prerequisite: Cell Biology 512. SP (0-8-4) B. Eisenberg.

CEL 531

Stereology. This course will present practical and theoretical approaches to measurement of anatomical structures. General principles of estimation of volume, surface area and number will be covered by stereology and other techniques. Permission of instructor. (2-0-2) B. Eisenberg.

CEL 533

General Pathology. The general concepts of pathology are studied with an introduction of cell injury, inflammation, immune response, metabolic and toxic pathological processes, and neoplasia. The lectures and seminar groups are accompanied by laboratory work in the microscopic anatomy of pathological changes. Prerequisite: Anat. 451 or permission of instructor. FA (3-4-5) Pauli.

CEL 599

Independent Study. (v-v-v)

CLINICAL CONCEPTS AND SKILLS

CCS 501, 502

Clinical Concepts and Skills I, II. A comprehensive introduction to clinical medicine utilizing the resources of the Medical Center and the Rush network hospitals. Studies are primarily tutorial, but texts, audiovisual, and mechanical aids are available for self-study. Initially, students work with instructors and peers, learning to elicit a history and do a general screening examination. This is followed by extensive experience working with patients under the supervision of practicing physicians, with emphasis on eliciting historical information and gaining experience in physical examination techniques. Demonstration of pathological abnormalities and clinical pathological correlations are

emphasized. Taught over three terms. [125 hours] Graettinger, McLaughlin, Vanderberg.

CCS 611

Computer Literacy. This medical computing elective includes an overview of computer system components, functions, and environments; practice in microcomputer applications such as word processing, communication, information retrieval and data base management; computer and software selection; medical computing in the patient care system, office practice, clinical decisions, patient monitoring, and medical research. Experience will include lecture/discussion, hands-on experience, site visits, and projects. Prerequisites: Medicine-Internal 601, Surgery 601. [4 weeks, offered in April and September] Brenner, Stibolt.

DERMATOLOGY

DRM 616

Dermatology. Dermatological problems are studied under the direct supervision of the departmental staff; diseases are considered from the standpoint of etiology, pathogenesis, diagnosis, course, and treatment. Skin biopsy applications and techniques as well as histopathologic interpretation are emphasized. Skin therapeutics are taught, stressing biochemical and physiological considerations. FA WI SP SU [4 weeks] Pearson.

FAMILY PRACTICE

FAM 601

Core Clerkship in Fam. Prac. An intense ambulatory experience in family practice. Students see patients initially and formulate their assessments and plans under supervision of senior residents and attendings. Participation in comprehensive, longitudinal care is stressed. The common problems and responsibilities of a primary care physician are observed and taught. A lecture series and syllabus supplement the clinical experience. Prerequisite: Medicine-Internal 503. FA WI SP SU [4 weeks] Dent.

FAM 602

Advanced Fam. Prac. An intensive ambulatory care experience at one of the Rush affiliated family practice centers. A minimum of 20 hours per week is spent seeing patients with family practice senior residents and faculty. Prerequisite: Family Practice 601. FA WI SP SU [6 weeks] Brueschke.

FAM 621

Emergency Medicine-CH. Students encounter a broad range of emergency problems in all areas of this large emergency service. The student will evaluate and manage patients under the direction of emergency medicine faculty and residents. Prerequisites: All core clerkships. FA WI SP SU [4 weeks] Feldman.

FAM 624

Inpatient Fam. Prac. - West Suburban Hospital. Students work with attending family physicians who admit

Courses

their patients to the West Suburban Hospital Fam. Prac. teaching service, as well as with the second-year resident assigned to the service. Students will be responsible for comprehensive management of patients under guidance of the resident and attendings. Prerequisites: Family Practice 601, Medicine-Internal 601. FA WI SP SU [4 weeks] McCoy.

FAM 641

Urban Primary Care. A preceptorship with a family physician in an urban solo practice, emphasizing preventive health care and the impact of environmental factors upon health care delivery. Prerequisite: Family Practice 601. FA WI SP SU [4 weeks] Young.

FAM 642

Community Medicine - Stickney Clinic. A broad-based ambulatory care preceptorship in a community-funded health clinic, serving the primary care needs of southwest suburban Stickney Township. Prerequisite: Family Practice 601. FA WI SP SU [4 weeks] Largosa.

FAM 643

ANCHOR Primary Care Preceptorship. A preceptorship with a family physician in practice in a prepaid group medical practice (health maintenance organization). Emphasis will be upon health maintenance and upon understanding unique aspects of voluntary prepaid health care. Prerequisite: Family Practice 601. FA WI SP SU [4 weeks] Noureldin.

FAM 644

Preceptorship in Wholistic Health Care Center. The student will work with a health care team comprised of a family physician, nurse, and pastoral counselor. There will be participation in the health care of patients, encompassing medical, psychological, and spiritual issues including particular emphasis upon wellness promotion and comprehensive health planning. Prerequisite: Family Practice 601. FA WI SP SU [4 weeks] Ferrel (Oak Lawn), Humowiecki (Oak Park).

FAM 645

Suburban Private Practice - Oak Lawn. A preceptorship with an experienced family physician, both at his office in southwest Chicago and at CH. The student will work in all areas of this busy physician's practice. Prerequisite: Family Practice 601. FA WI SP SU [4 weeks] Shobris.

FAM 651

Rural Primary Care - Streator. A preceptorship with an experienced family physician in Streator, Illinois, a town of 15,000 persons 90 miles southwest of Chicago. Prerequisites: Family Practice 601, Medicine-Internal 601, Obstetrics and Gynecology 601, Ped. 601. FA WI SP SU [4 weeks] Gottemoller.

FAM 652

Rural Primary Care - Galesburg. A preceptorship with an experienced family physician in the small town of Galesburg, Illinois. Emphasis will be upon the practice of primary care in a rural setting, including use of both local and remote consultative services and community involvement of the physician. Prerequisites:

Family Practice 601, Medicine-Internal 601, Obstetrics and Gynecology 601, Ped. 601. FA WI SP SU [4 weeks] Currie.

FAM 653

Primary Care - College Health Service. A preceptorship at the Illinois State University Health Service, emphasizing the medical and psychological problems and health care needs of young adults. Prerequisites: Family Practice 601, Medicine-Internal 601, Ped. 601, Psychiatry 601. FA WI SP SU [4 weeks] Devitt.

FAM 661

Combined Fam. Prac./Psychiatry. Students acquire greater skill and experience in interviewing and assessing ambulatory patients; particular emphasis will be placed on crisis intervention and supportive psychotherapy. Students will see patients at the CH Fam. Prac. Center. Videotapes of student/patient sessions will be reviewed by psychiatry faculty at Rush. Lectures and supervised interviews will also be held at Rush. Prerequisites: Family Practice 601, Psychiatry 601. FA WI SP SU [6 weeks] Dent, Zadylak.

GERONTOLOGY

GER 452

The Aging Process: An Inquiry. A survey of aging, focusing on the normal aging process as seen in and by contemporary society. FA SP (2-0-2)

GER 503

Introduction to Social Gerontology. An introduction to social, political, and economic forces affecting the older adult in American society. WI (3-0-3)

GER 523

Physiological Aspects of Nutrition in the Elderly. Physiological aspects of food absorption, distribution, metabolism, and excretion relevant to the aging adult. The nutrient intake of the elderly is examined in light of their nutritional requirements. Prerequisite: Anat. 462 or Physiol. 451 or permission of instructor. (2-0-2)

HEALTH CARE EDUCATION

HCE 454

Development of Instructional Media. An overview of communication theory and its relationship to the communication process is used by students to design an instructional media program for a specific target audience. (2-0-2) Block.

HCE 501

Introduction to Teaching and Teaching Strategies. This course is designed to provide essential background of teaching including philosophy, learning theory, learning domains, and cognitive style. FA WI (2-0-2)

HCE 503

Introduction to Evaluation Approaches and Testing and Measurement. This course is designed to present general evaluation models. Test item construction and

clinical performance evaluation will be included. SP SU (2-0-2)

HCE 511

Clinical Teaching Practicum. Students will assist a clinical teacher in teaching undergraduate nursing students during a field experience. Prerequisite: Health Care Education 501 or 503. WI SP (2-6-4)

HCE 522

Production of a Media Presentation. Under the guidance of biomedical communications staff, the student will coordinate and perform all activities relating to the production of a media presentation. The student is expected to use the finished product to provide information or instruction for a specific target audience. (2)

HCE 525

Communication in the Health Professions. The student will explain the purpose, function, and application of specified communication techniques to health care settings and will demonstrate skill in their use in practice situations. (3-0-3)

HCE 531

Curriculum Design and Development. Curriculum design, organization, development, and trends will be the content of this course. FA SU (2-0-2)

HCE 533

Introduction to Instructional Design in the Health Sciences. The student will develop a basic understanding of the learning process by preparing a teaching unit in a content area of choice for a specified group of learners; by relating selected principles of learning to adults; and by evaluating teaching effectiveness. (3-0-3)

HCE 541

Administration of Nursing Education. An overview of selected topics covering trends and issues, principles, concepts and theories of administration; key components of nursing educational administration and preparation for administrative leadership will be presented. FA (2-0-2)

HCE 571

Writing for Publication. Emphasis is on the writing process, beginning with the gestation of an idea through completion of a potentially marketable article for a nursing or professional journal. WI SU (2-0-2)

HCE 581

Introduction to Research. The student develops skill in critically analyzing research studies, formulating research problems, designing research methods, using descriptive and inferential statistics to interpret data, analyzing data using parametric and nonparametric statistical models, and developing beginning competencies in the use of computers in research. (3-3-4)

HCE 583

Clinical Investigation I. A seminar course based on the philosophy of science. The central aim of the course is to provide a basis for the utilization of the

methods of science in professional practice. Content includes introductory statistics, research methodology, and ethical and legal considerations in clinical research. Prerequisite: Introductory statistics. FA SP (2-0-2)

HCE 584

Clinical Investigation II. A continuation of Health Care Education 583. WI SU (2-0-2)

HEALTH AND SOCIETY

H&S 361

Issues in Holistic Health. This course focuses on current concepts and practices in the holistic health movement. It includes the historical development of holistic health philosophies, and overview of alternative methods/techniques/practices of health care, self-care management, ethnic/cultural influences, and consumer education. The health care provider's role in assisting the client to integrate both holistic and conventional health practices is emphasized. (2-0-2)

H&S 461

Culture, Race, Poverty, and Health Care. Seminar and discussion on the influence of race, values, stereotypes, and poverty on health care delivery. (2-0-2)

HEALTH SYSTEMS MANAGEMENT

HSM 502

Health Care Organizations I. An understanding of the factors, forces and dynamics of the macro environment in which various health care institutions operate. (3-0-3)

HSM 503

Health Care Organizations II. Knowledge of institutional perspective of health services management through an understanding of provider groups, internal organizational elements, patient care processes, and key managerial activities of health care institutions. (3-0-3)

HSM 504

Management Issues in Nursing. The theoretical and practical aspects of several current issues in nursing management are explored. FA SP (3-0-3)

HSM 506

Medical Sociology. An examination of the sociological, psychological, and behavioral dynamics of practitioners and groups within the health care delivery system. (4-0-4)

HSM 507

Epidemiology. An understanding of the principles and methodologies of epidemiology, research design, and program evaluation emphasizing application to the planning and management of health care services. (4-0-4)

Courses

HSM 508

Theories of Organizational Behavior. This course will examine the major theories that have shaped the discipline of organizational behavior. (2-0-2)

HSM 515

Human Resources Management I. An understanding of the human relations skills required of the health systems manager in an environment filled with both federal and state legal constraints. Skills acquired include motivating employees, appraising performance, dealing with disciplinary problems, and employee counseling. (4-0-4)

HSM 516

Human Resources Management II. Examination of the labor-management relationship including the employment and labor laws impacting on both the union and nonunion work force. Provides an understanding of the unions prevalent in health care, strategies in confronting an organizing campaign, the processes of collective bargaining, and effective contract administration. (3-0-3)

HSM 518

Personnel Compensation Systems. General compensation theory is stressed in this course. Students become acquainted with the motivational aspects of compensation and a variety of labor cost issues. Analytical models and quantitative methods as they apply to personnel/compensation issues are covered as well as the utilization of manpower analysis. (3-0-3)

HSM 522

Multi-Institutional Arrangements. An analysis of goals and organizational structures of multihospital systems and an understanding of causes for this trend, barriers to development, advantages/disadvantages and future trends. (3-0-3)

HSM 526

Nursing Management: Planning for the Delivery of Service. This course will explore the principles of planning inherent in the development and organization of systems to deliver nursing care. WI SU (3-0-3)

HSM 530

Foundations of Economic Analysis. An understanding of microeconomic theory; an analysis of current economic problems; and preparation to analyze future problems not as yet encountered. (4-0-4)

HSM 531

Finance I. Understanding the concepts and principles of accounting and finances and their application in health systems management. (4-0-4)

HSM 532

Finance II. Provides an understanding and knowledge of health-care-services payment policies including sources of payment, e.g., Medicare, Medicaid, Blue Cross; emerging payment arrangements, e.g., DRGs, PPOs, HMOs; and the application of budgeting principles to health care institutions. (4-0-4)

HSM 533

Health Economics. Application of economic tools and theories to the delivery of health care services. (3-0-3)

HSM 536

Corporate Finance. Provides the financial tools and ability to understand the main issues of corporate finance and financial management. This course shifts the student's focus from the micro to a macro or corporate view of financial management. (3-0-3)

HSM 539

Finance Seminar. The application of knowledge and skills acquired in the Hlth. Sys. Mngmnt. finance courses and the integration of decision making processes. Students make strategic planning, staffing, capital financing, pricing, and cash management decisions for a hospital under changing environmental trends and payment policies. These decisions will affect the hospital's financial position relative to other hospitals in the community through a computer simulation model. (3-0-3)

HSM 543

Health Law. Provides a systematic and comprehensive knowledge of law as it impacts health care delivery systems. Students acquire an understanding of contract law, tort law, corporate law, labor law, and civil procedure. (4-0-4)

HSM 545

Organizational Analysis. An introduction to the study of organizations, including structures, processes, and human behavior. This course focuses on theories and concepts in such areas as organizational research, motivation, stress, leadership, group dynamics, roles, decision making, technology, communication, ethics, and change. (3-0-3)

HSM 546

Advanced Organizational Analysis. Combines the study of organizations and their environments, behavioral theories of management, goal setting, and conflict resolution with examples from industrial and health care settings. Special attention is paid to managing the resource allocation process, environmental uncertainty, and instituting change. (3-0-3)

HSM 553

Computers for Health Systems Managers. The student will acquire technical and conceptual computer skills and an understanding of the role of data processing in hospital administration. (4-0-4)

HSM 554

Decision Support Systems. Knowledge and understanding of information systems supporting both the management of health care and the delivery of patient care. (4-0-4)

HSM 556

Medical Group Practice Management. An understanding of the organization of physicians in fee-for-service and prepaid medical group practices (including

HMOs), and the medical group practice relationships to other components of the health care system. (3-0-3)

HSM 561

Planning I: Strategic Planning. An understanding and working knowledge of strategic planning as applied within health service organizations. Special emphasis will be placed on planning theory, techniques and conceptual models used in the strategic planning process. (3-0-3)

HSM 562

Planning II: Marketing Management. An understanding and working knowledge of marketing theory, terminology, techniques, and analytical approaches for marketing health services. (3-0-3)

HSM 565

Facilities Planning. An understanding of the basic concepts, issues, problems, and techniques in health care facilities planning including cost control, quality and timeliness of projects, contract administration, space allocation, and capital expenditure. (3-0-3)

HSM 568

Planning Health Professional Resources. An understanding of the impact of planning health professionals resources on health care systems and institutions and the relationship of policy and management decisions to the education, supply, and scope of practice of health professionals. (3-0-3)

HSM 574

Health Care Delivery Systems. This course provides an overview of the scope, structure, and role of the health care delivery system and its relationship to the external environment. Management function and technique are studied within this context. Limited to clinical nutrition students or permission of instructor. (3-0-3)

HSM 585

Quantitative Methods I. The acquisition of statistical skills such as graphical methods, descriptive statistics, probability theory, nonparametric comparisons. SAS is used to facilitate data analysis. (4-0-4)

HSM 586

Quantitative Analysis II. Topics include simple and multiple regression analysis, time series, forecasting, basic systems analysis, and cost benefit analysis. (4-0-4)

HSM 587

Quantitative Methods III. An understanding of intermediate and advanced quantitative techniques as applied to hospital decision making including an understanding of hospital departments with a view to maintaining and improving operations. (4-0-4)

HSM 595

Graduate Seminar. The capstone seminar of the health systems management program addresses selected topics and issues in health care today with the broad participation of faculty and eminent leaders in the field. (1-0-1)

HSM 597

Graduate Project. This is a capstone course of the health systems management curriculum that provides the student an additional opportunity to apply problem-solving skills and evaluation techniques during the conduct of a management study at RPSLMC or an affiliated institution. Major emphasis is placed on developing students' report writing and oral presentation skills. (8-0-8)

HEMATOLOGY

HEM 301

Hematology I. Study of normal hematopoiesis including development, metabolism, kinetics, and function of red cells, white cells, and platelets and an introduction to the various associated hematologic disorders. Fundamentals of hemostasis, including coagulation pathways and laboratory procedures which evaluate these mechanisms are covered. Includes laboratory experiences dealing with basic routine tests performed in a clinical hematology laboratory, such as simple automated cell counting, blood smear morphology, and reticulocyte counts. (3-6-5)

HEM 425

Hematology II. Review of normal hematopoiesis and an in-depth study of erythrocyte disorders, their etiologies, pathophysiology, clinical features, and significant laboratory findings. Prerequisite: Hematology 301. (2-0-2)

HEM 426

Hematology III. Continuation of Hematology 425 with an in-depth study of leukocyte and coagulation disorders that covers etiology, clinical features, and significant laboratory findings. Prerequisite: Hematology 425. (2-0-2)

HUMANITIES

HUM 461

Physician as Writer. An exploration of selected fiction, chronicles and autobiographies by Disting, twentieth century physician-writers (including William C. Williams, Chekhov, and Azuela). Focus will be on writers' unique responses to questions of medical ethics, involvement in social issues, and Dr.-patient relationships, as well as on physicians as philosophers and humorists. (2-0-2) Vidaver-Cohen, Cohen.

HUM 462

Physician on Stage and in Fiction. An investigation of Disting, nineteenth and twentieth century plays and novels which feature the physician as a major character. Works by G. B. Shaw, Eugene O'Neill, Friedrich Durrenmatt, Tennessee Williams, Henrik Ibsen, and Sinclair Lewis highlight the physician in crises, profile scientific men, portray the psychiatrist as character, and present the American regional practitioner. (2-0-2) Vidaver-Cohen, Cohen.

HUM 463

Disease as Subject in Contemporary Literature. An examination of the depiction of disease in outstanding fiction and poetry as well as in memoirs, journals and personal narrations of some Disting. contemporary writers who faced disease and analyzed their experiences with acute perception. Works by Albert Camus, André, Gide, Elanor Clark, John Updike, Thomas Mann, John Berryman, and Katherine Anne Porter will be considered. Lectures, readings, and discussion. (2-0-2) Vidaver-Cohen, Cohen.

HUM 464

Benjamin Rush and Sigmund Freud: Biography and Autobiography. Elective seminar focusing on the lives of Drs. Freud and Rush through a close look at letters, writings and autobiographical statements. In discussion and lecture the class will construct from these autobiographical materials the beginning of biographical statements and will consider the method and purpose of biography. (2-0-2) Strozier.

IMMUNOLOGY

IMM 301

Basic Immunology. An introduction to the basic concepts and terminology of immunity including development, structure, and function of the lymphoid systems; the basis of antigenicity; antibody structure; methods of detection and measurement; mechanism of cellular immunity; white cell function; hypersensitivity reactions; the complement system; and mechanisms of immune suppression and tolerance. Methods of laboratory evaluation of humoral and cellular immunity are introduced. (3-0-3)

IMM 402

Clinical Immunology. Study of clinical and applied immunology as it relates to the role of the immune response in production of disease; primary and secondary immunodeficiency, atopy and other forms of hypersensitivity, autoimmunity, transplantation and tumor immunity. The use of immunology as a diagnostic, prognostic and therapeutic aid is studied. Prerequisite: Immunology 301. (2-0-2)

IMM 403

Clinical Serology. Students will learn to apply the fundamental concepts of antigen-antibody interactions to routinely performed assays of syphilis and non-syphilis serology. Laboratory sessions cover proficiency in performance and familiarity with purpose, principles and interpretations of the following tests: RPR, CSF-VDRL, TPA, FTA-ABS, Monospot, Monotest, Heterophile, ASO, AHT, ANTI-DNAase B, RF Latex, RF SCAT, Anti-Thyroglobulin and Anti-Microsomal. Prerequisite: Immunology 301. (2-6-3)

IMM 431

Immunohematology. Blood group antigens and antibodies from the discoveries of Landsteiner in 1900 to the present day are studied. Blood banking

procedures involved in drawing, testing, storing, and transfusing whole blood and its components are discussed. The laboratory section will deal with the basic blood bank procedures including ABO grouping, RH typing, compatibility testing, and special antibody studies. Prerequisite: Immunology 301. (3-6-5)

IMM 501

Immunology. An introduction-to immunology with emphasis on basic concepts and principles, interwoven with a study of their clinical applications. FA (5) [52 hours] Lint.

IMM 521

Basic and Clinical Immunology: Lecture Segment. A comprehensive introduction to immunology, with emphasis on basic concepts and principles, and clinical applications. FA (5-0-5) Lint.

IMM 522

Basic and Clinical Immunology: Tutorial Segment. Tutorial sessions encompassing a detailed discussion of topics encountered in Immunology 521. FA (3-0-3) Lint.

IMM 533

Basic Cellular Immunology. A comprehensive introduction to cellular immunology including lymphocyte ontogeny, cellular interactions, and effector cell function. Alt. WI (4-0-4) Gebel.

IMM 534

Advanced Cellular Immunology and Immunogenetics. Current topics in cellular immunology and a comprehensive introduction to immunogenetics. Prerequisite: Immunology 533. Alt. SP (4-0-4) Plate.

IMM 535

Tumor Immunology. Immunology of cancer including tumor antigens, anti-tumor immune effector mechanisms, effect of malignancy and therapy on immune competence, and immunotherapy. Prerequisite: Immunology 533. Alt. SP (2-0-2) Braun.

IMM 541

Structure and Immunobiology of Membranes. A comprehensive examination of the physical, chemical, biochemical, and immunological forces which contribute to the structure and function of all membranes with special emphasis on membranes relevant to immune mechanisms. Alt. WI (4-0-4) Potempa.

IMM 543

Molecular Immunology. A comprehensive examination of immunoglobulins and antigens with special emphasis on how structure relates to immune function and on the molecular basis of antibody diversity and complement reactivities. Alt. WI (4-0-4) Potempa.

IMM 545

Complement. A detailed consideration of the structure and function of the proteins of the complement system. Alt. SP (4-0-4) Lint.

IMM 552

Bacterial Pathogenesis and Host Defense. Mechanisms involved in infection and host responses to infectious agents are considered. Alt. SP (4-0-4) Schuytema.

IMM 554

Immediate Hypersensitivity. A detailed examination of IgE structure and regulation, mechanisms of histamine release from human cells, allergens, and allergic phenomena. Alt. WI (2-0-2) Thomas.

IMM 555

Inflammation. An introduction to the mechanisms in the inflammatory response. Alt. WI (2-0-2) Fiedel.

IMM 561

Clinical Immunology. A review of critical topics in clinical immunology from the clinical and pathologic viewpoints. Alt. SP (4-0-4) Landy, Luskin.

IMM 571

Laboratory Tutorial. Individual program designed to acquaint the student with research protocols and interests within the department. (v-v-v) Staff.

IMM 590

Special Topics. Detailed independent study of selected contemporary topics in immunology. (v-v-v) Staff.

IMM 598

Pre-Thesis Research. Research credits prior to acceptance to doctoral candidacy. (v-v-v) Advisor.

IMM 599

Independent Study. Specialized course work designed around the needs of an individual student. (v-v-v) Staff.

IMM 699

Thesis Research. Research credits after admission to candidacy. (v-v-v) Advisor.

INTERNAL MEDICINE**MED 501, 502, 503**

Clinical Pathophysiology I, II, III. Serving as a bridge between the basic sciences and clinical medicine the course helps to make the student conversant with the limits of biochemical and physiologic responses under a variety of stresses and disease states. Emphasis is in three basic areas: (1) abnormal, general cellular biology; (2) homeostasis; and (3) organ system pathophysiology. The course closely coordinates with topics in the pathology course and also with didactic material to be presented during the third-year clinical program. An essay is required. FA WI SP [215 hours] Liebson.

MED 601

Core Clerkship in Int. Med. The medicine clerkship is designed to provide the student with experience in basic clinical skills and knowledge of internal medicine,

and to provide a supervised program of instruction in all modes of medical care. Each student is expected to participate in all floor functions and do extensive investigation of clinical problems assigned. Prerequisite: Clinical Concepts and Skills 502. FA WI SP SU [12 weeks] Rosen.

MED 602

Advanced Int. Med. Students function at an advanced level, doing histories and physical examinations, diagnostic evaluations and initiation of appropriate therapies. There is close supervision by staff of the Department of Int. Med. Prerequisites: Medicine-Internal 601, Surgery 601. FA WI SP [4 weeks] Blacklow.

MED 605

Geriatric Medicine. Identification of the problems seen most commonly in geriatric patients and insight into the approach and management of these problems. Includes the following: drug effects and interaction in the elderly; organic brain syndrome; approach to rehabilitation of the stroke patient; problems encountered in nursing home patients; urinary incontinence; and osteoporosis and its consequences. Prerequisite: Medicine-Internal 601. FA WI SP SU [4 weeks] Salzman.

MED 611

Clinical Cardiovascular Medicine. Includes the study of the diagnostic spectrum of cardiac evaluation: bedside assessment, electrocardiography, vectorcardiography, phonocardiography, ultrasound, cardiac catheterization, coronary angiography, and exercise testing. At network hospitals, experience in bedside diagnostic and noninvasive evaluation is emphasized. Prerequisite: Medicine-Internal 601. FA WI SP SU [4 weeks] Liebson (Rush), Lubell (Mount Sinai), O'Donoghue (LaGrange).

MED 612

Medical Intensive Care Unit. Experience in the recognition and management of medical emergencies, particularly the use of temporary pacemakers, bedside hemodynamic monitoring, and respirators, and management of renal emergencies and cardiac arrhythmias. Prerequisite: Medicine-Internal 601. FA WI SP SU [4 weeks] Condini.

MED 613

Introduction to Cardiovascular Research. Student programs are individually planned with emphasis on understanding basic research techniques rather than on the accomplishment of a specific research project. Students participate in the research program of the Section of Cardiology including projects in human hemodynamics, cardiogenic shock, noninvasive studies, myocardial metabolism, cardiovascular electronics, and computer application. Prerequisite: Medicine-Internal 601. FA WI SP SU [8-12 weeks] Messer.

MED 614

Preventive Cardiology. Lectures and discussions pertinent to primary and secondary prevention in cardiovascular mortality and morbidity, important risk

Courses

factors of coronary artery disease, epidemiology and prevention of hypertension, review of recent clinical trials, and intervention strategies in prevention of coronary artery disease. Prerequisite: second-year medical student status. FA WI SP SU [4 weeks] Liebson.

MED 615

Emergency Medicine. Students will see patients in all areas of the emergency room under the supervision of attendings and residents. Emphasis will be on complaint-oriented history taking, performance of a pertinent physical exam, recording the findings, and discussion of the patient with the supervisor who may repeat some of the exam as necessary. Prerequisites: Medicine-Internal 601, Surgery 601. FA WI SP SU [4 weeks] Hanashiro.

MED 617

Echocardiography. The use of ultrasound to assess clinical problems in cardiology. Students develop expertise in evaluating cardiac function by means of this noninvasive tool. Areas of concentration include left ventricular function, valvular heart disease, and common congenital heart disease problems. By arrangement with instructor. Prerequisite: Family Medicine 601 or Medicine-Internal 601. FA WI SP SU [2 or 4 weeks] Liebson.

MED 619

Clinical Problem Solving in Cardiology. An in-depth elucidation of the techniques of clinical problem solving with concentration on a few patients with multiple problems, primarily cardiovascular. Concepts to be stressed are: problem-solving algorithms; natural history of disease; cause-effect relationships; and approach to the individual patient in terms of possible research questions. A five-page exposition of a case in terms of problem solving is required. By arrangement with instructor. Prerequisite: Medicine-Internal 503 or 601 or Family Medicine 601. [2 weeks] Liebson.

MED 621

Clinical Endocrinology and Metabolism. Endocrine and metabolic disorders are studied under the direction of the clinical faculty. Regular departmental conferences and seminars supplement clinical work, which is primarily with hospitalized patients. Prerequisite: Medicine-Internal 601. FA WI SP SU [4 weeks] Northrop.

MED 626

Clinical Nephrology. The clinical diagnosis and management of patients with renal disease as well as various fluid, acid-base, and electrolyte abnormalities are studied. In addition, the course is directed toward the proper interpretation of pathophysiologic findings and the practical management of various disorders involving the excretory system and body fluids. Prerequisite: Medicine-Internal 601. FA WI SP SU [4 weeks] Lewis.

MED 631

Clinical Gastroenterology. The case study method is used to demonstrate the methods of clinical gastroenterology, gastroscopies, colonoscopies, small bowel and liver biopsies, esophageal motility studies, and

proctoscopies. Students extensively review the literature on subjects related to cases seen during the course of the rotation. Prerequisite: Medicine-Internal 601. FA WI SP SU [4 weeks] Schaffner.

MED 636

Clinical Hematology. Regular review of case studies with the faculty provides the basis for in-depth study of clinical diagnostic hematology, particularly through study of bone marrows and other diagnostic facilities of the laboratory. Prerequisite: Medicine-Internal 601. FA WI SP SU [4 weeks] Knospe.

MED 646

Clinical Infectious Disease. Students are expected to master basic principles of diagnosis and management of patients with infections. Appropriate use of diagnostic microbiology, differential diagnosis of febrile patients, and appropriate selection of chemotherapeutic agents are taught during case presentations on daily rounds. Prerequisite: Medicine-Internal 601. FA WI SP SU [4 weeks] Trenholme.

MED 651

Clinical Rheumatology. Emphasis is on the fundamentals of joint examination, observation and performance of laboratory examinations on synovial fluid, and familiarity with the spectrum of laboratory procedures useful in rheumatologic diagnosis and treatment. The interdisciplinary approach relies heavily on contributions of immunology, orthopedics, diagnostic radiology, physiotherapy, and occupational therapy. Prerequisite: Medicine-Internal 601. FA WI SP SU [4 weeks] Glickman.

MED 661

Clinical Oncology. Patients seen by the Section of Medical Oncology provide an ample and varied spectrum of oncological problems. Various therapeutic approaches and complications occurring in the course of the disease are discussed. The program stresses the importance of the combined interdisciplinary approach, using the resources of the departments of surgery, therapeutic radiology, pathology, and nuclear medicine. Prerequisite: Medicine-Internal 601. FA WI SP SU [4 weeks] Harris, Rossof.

MED 671

Clinical Pulmonary Medicine. The management of patients with pulmonary disease provides the focus for the study of clinical management, interpretation and use of pulmonary function and ventilatory studies, and gas management. The essentials of pulmonary physiology are emphasized. Prerequisites: Medicine-Internal 601, Surgery 601. FA WI SP SU [4 weeks] Rosen.

MED 676

Clinical Hepatology. Students will participate in the Hepatology Service rounds by presenting histories, assisting in the performance of liver biopsies, and observing a variety of endoscopic procedures. Pertinent liver biopsy material will be reviewed in clinical context. Prerequisite: Medicine-Internal 601. FA WI SP SU [4 weeks] Payne.

MED 677

Clinical Immunology/Allergy. Students work directly with house staff and their inpatients, functioning as primary allergy/immunology consultants. Under the supervision of residents, fellows, and attending staff, the student formulates a diagnostic and treatment plan and makes formal and informal teaching rounds on all (Allergy/Immunology Service) inpatients. Multiple teaching conferences are held, many of which are directed primarily to the medical students. Prerequisite: Medicine-Internal 601. FA WI SP SU [4 weeks] Luskin.

MEDICAL PHYSICS**MPH 459**

Radiation Safety for Research Workers. This course covers the principles of practice for the safe use of radioactive material. SP (2-1-3) Chung-Bin, Majewski.

MPH 460

Introduction to Radiation Safety and Diagnostic Radiological Physics. The course covers medical x-ray protection for energies up to 10 MeV, x-ray equipment design and use. FA (2-v-3) Chung-Bin.

MPH 461

Physics of Diagnostic Radiology. An intermediate course in physics for residents in diagnostic radiology. Prerequisite: Medical Physics 460. WI (3-0-3) Chung-Bin.

MPH 463

Physics of Nuclear Magnetic Resonance Imaging. This course is a basic introduction to the physical principles of NMR, with emphasis on proton NMR. Topics covered will include fundamentals of magnetic resonance, relaxation times, and the basis for imaging techniques. SP (2-0-2) Groch.

MPH 465

Computer Science Applied to Imaging. The objective of this course is to present the fundamentals of computer science to physicians whose specialty is in diagnostic imaging. SP (2-1-2) Chung-Bin, Staff.

MPH 471

Physics of Nuclear Medicine I. The course covers: mathematics for nuclear medicine, nuclear reactions, decay schemes, half-life, decay series, interaction of radiation with matter, and detectors used in nuclear medicine. Imaging instrumentation including scintillation camera, emission tomography, and application of the computer to nuclear medicine are covered. WI (3-0-3) Groch.

MPH 475

A Workshop in Radiopharmaceutical Science. This course covers: production of radionuclides, generators; formulation & Q.C. of tracers for 16 organ localization, in vitro, in vivo-studies; dosimetry; FDA; and safe handling. Lab: compounding, biodistribution, and imaging. FA WI SP (1-0-1) Rayudu.

MPH 481

Introduction to Therapeutic Radiological Physics. The course covers: basic physics, definition and measurement of dose, physical and clinical dosimetry, and quality assurance. FA (3-0-3) Kartha.

MPH 482

Therapeutic Radiological Physics. The five "p's" of radiation therapy physics are examined: prescription, physical dose, planning, precision, and pattern of treatment outcome; interactions of x-rays and gamma-rays; measurement of exposure, calibration of high-energy photon and electron beams; and dose distributions for external-beam therapy. Prerequisite: Medical Physics 481. WI (3-0-3) Kartha.

MPH 483

Dosimetry Applied to Th. Rad. This course is designed for therapeutic radiology trainees, including residents, and is organized as a rotation in the Section of Medical Physics. The laboratory exercises consist of routine dosimetry computations in clinical radiotherapy. Prerequisite: Medical Physics 481. SP (0-8-4) Kartha.

MPH 484

Brachytherapy Physics. This course is designed for residents in therapeutic radiology and graduate students. Topics include basic physics of radioactivity, and use of radioactive isotopes in clinical radiotherapy. Prerequisite: Medical Physics 482. SP (2-0-2) Kartha.

MPH 486

Introductory Hyperthermia. This course will cover the physical and biological mechanisms of hyperthermia as well as the commonly used methods for delivery of heat energy for cancer therapy. SP (2-0-2) Urbon.

MPH 488

Physics Applied to Dermatology. The course covers: basic physics, interaction of radiation with matter, definition and measurement of dose for low-energy x-rays, and megavoltage electrons which are used for dermatological treatment. WI (1-0-1) Lanzl.

MPH 490

Medical Radiological Physics Review. An intensive review course in all branches of medical radiological physics for preparation for the American Board of Radiology Certification examination. Prerequisites: Medical Physics 461, 471, 482. SP (3-0-3) Chung-Bin, Staff.

MPH 491

Introduction to Computers. The course covers: basic components and a systematic presentation of building blocks of computer hardware and software for beginners. SP (2-2-3) Wachtor.

MPH 501

Radiation Physics. This course provides a rigorous examination of the interaction with matter of high-energy particles: photons, electrons, neutrons, and heavy-charged particles. FA (3-0-3) Hubbard, Jette.

Courses

MPH 502

Radiological Physics I. The course covers: design and operation of accelerators; radiation quantities and units including stochastic and nonstochastic quantities; ion collection and recombination; and dosimetry systems used in therapeutic radiology and radiobiology. Prerequisite: Medical Physics 501. WI (4-0-4) Lanzl.

MPH 503

Radiological Physics II. Continuation of Radiological Physics I. SP (4-0-4) Lanzl.

MPH 504

Topics in Radiation Dosimetry. The course covers: track-etching phenomena, registration of fission fragments, alpha particles, and recoil nuclei; wall-less detectors in microdosimetry; Katz and Kelleher-Rossi theories of particle tracks; and thermo-photoluminescence. Prerequisite: Medical Physics 502. SP (3-0-3) Lanzl, Rozenfeld.

MPH 505

Radiological Physics Laboratory. This is a practical course directed towards understanding of the instruments, apparatus, and facilities used in applied radiation work. This course will include carrying out scientific evaluation and essay-type reporting. Medical Physics 502. FA WI SP (v-v-v) Jayaraman.

MPH 531

Radiation Biology. The course will consider ionizing radiation effects on single cells, organized tissue, and the known effects on man. Emphasis will be put on those radiobiological principles which closely relate to cancer treatment. WI (3-0-3) Hanson.

MPH 542

Radiation Oncology. This course will develop the basic concepts and principles of nonsurgical cancer management. The natural history of cancers in various organs will be reviewed and therapeutic strategies developed based on the pathophysiology of different cancer sites. WI (2-0-2) Hendrickson, Lee, Murthy, Staff.

MPH 559

Radiation Protection. This course covers: advanced topics in radiation protections, technical approaches for minimizing the dose, authorization to use radioisotopes, responsibilities of users, standards for radiation exposure, airborne contamination limits, transportation of radionuclides, formulation of standards, medical findings on individuals exposed to radiation, sources producing population exposure, and federal and state regulations. Prerequisite: Medical Physics 459. FA (3-0-3) Chung-Bin, Lanzl, Majewski, Rozenfeld.

MPH 561

Physics of Diagnostic Radiology. This course covers: x-ray generators; recording systems; grids; fluoroscopy; image intensifier TV systems, etc.; and in addition, an introduction to transfer function analysis of imaging systems is given. (3-0-3) Jette, Ten Haken.

MPH 571

Physics of Nuclear Medicine II. The course covers: production of isotopes, radiation detection, pulse height analysis, counting statistics, imaging theory, Fourier analysis, scintillation camera, collimation of radiation, image recording, noise analysis, image processing, quality assurance, radiation safety, evaluation of image quality, digital computers in nuclear medicine, dynamic and functional imaging, emission computed tomography, biokinetics and compartmental modeling, and radioimmunoassay. Prerequisite: Medical Physics 471. (3-0-3) Groch.

MPH 575

Nuclear Science Techniques as Applied to Biology and Medicine I. This course covers: radioactivity, measuring devices, production modes; nuclear reactor, cyclotron, generators; radiochemistry, labeling (^{3}H , ^{14}C , ^{125}I); and autoradiography, body counting, NAA. FA (2-0-2) Rayudu.

MPH 576

Nuclear Science Techniques as Applied to Biology and Medicine II. This course covers: labeling ($^{99}\text{m}\text{Tc}$, ^{131}I , ^{75}Se , ^{11}C , ^{13}N , ^{18}F) & Q.C.; tracers for 16 organs; applications in nuclear medicine, therapy, in vitro, hematology; dosimetry; radiation safety; licensing; and FDA. Prerequisite: Medical Physics 575. WI (2-0-2) Rayudu.

MPH 590

Medical Physics Research Seminar. This seminar serves as a forum for review of the ongoing research by the faculty, appropriate staff members, fellows, and graduate students. FA WI SP (2-0-1) Staff.

MPH 597

Introduction to Research. The student will undertake a directed project with a faculty member as an introduction to research. FA WI SP SU (v-v-v) Lanzl, Chung-Bin, Kartha, Rozenfeld, Jette.

MPH 598

Research. Under the guidance of a faculty member and committee, the student originates, proposes and executes basic or clinical research. FA WI SP SU (v-v-v) Lanzl, Chung-Bin, Kartha, Rozenfeld, Jette, Hubbard.

MPH 599

Independent Study. The student will undertake a creative project design under the supervision of a faculty member. FA WI SP SU (v-v-v) Lanzl, Chung-Bin, Kartha, Rozenfeld.

MEDICAL TECHNOLOGY

MTK 303

Body Fluid Analysis. Analysis of various body fluids with emphasis on the theory and practice of clinical procedures. Component topics will include the analyses of urine, gastric juice, cerebral spinal fluid, feces, semen, transudates, and exudates. (3-6-5)

MTK 304

Basic Laboratory Skills. Study and practice of basic laboratory skills used in the various clinical laboratory areas. Topics covered include instrumentation, proper use and maintenance; manual skills such as pipetting, titrating and venipuncture; preparation and standardization of reagents; and laboratory calculations. (3-12-7)

MTK 421

Practicum in Clinical Chemistry. Rotation through the hospital clinical biochemistry laboratories. The course includes the application of basic skills learned in student chemistry laboratory, instrumentation, and advanced methodologies. (0-24-8)

MTK 422

Practicum in Hematology. Rotation through the hospital clinical hematology laboratories. Application of basic skills learned in student laboratory, instrumentation, and advanced methodologies are included. Radiohematology, bone marrow techniques, and coagulation are also covered. (0-24-8)

MTK 423

Practicum in Immunology. Rotation through the hospital clinical immunology laboratory. Application of basic skills learned in student laboratory, instrumentation, and advanced methodologies are emphasized. (0-16-4)

MTK 424

Practicum in Microbiology. Rotation through the hospital clinical microbiology laboratories. Application of basic skills learned in student laboratory, instrumentation, and advanced methodologies are emphasized. (0-24-8)

MTK 425

Practicum in Immunohematology. Rotation through the hospital blood bank laboratory. Application of basic skills learned in student laboratory, instrumentation, and advanced methodologies are emphasized. (0-16-4)

MTK 441

Seminar in Medical Technology. Discussion of current topics in medical technology and associated fields. Students present abstracts. (2-0-2)

MICROBIOLOGY**MIC 311**

Diagnostic Bacteriology. Special emphasis is on diagnostic procedures employed in the clinical bacteriology laboratory, such as specimen collection, isolation and identification of medically important bacteria, antibiotic sensitivity testing, and determination of serum antibiotic levels. Course includes laboratory exercises associated with these various concepts. Development of proficient skills in the various techniques is stressed. (3-9-5)

MIC 411

Parasitology, Mycology, and Virology. This course

provides clinical background in mycology, parasitology, and virology. Emphasis is on the disease involved and on diagnostic procedures used in the laboratory. The laboratory portion consists of identification, specimen collection, and processing of medically important viruses, fungi and parasites. Prerequisite: Microbiology 311. (3-6-5)

MIC 451

Microbiology Concepts. An introduction to the morphological and physiological characteristics of infectious agents of importance in human disease. SP (5-1-5) [60 hours] Schuytema.

MIC 501

Clinical Bacteriology. The experience provides rotation in each section of the diagnostic bacteriology laboratory with emphasis on laboratory identification of bacteria. Prerequisite: Microbiology 451. (v-v-v) [4 weeks] Landau.

MIC 523

Molecular Genetics. Contemporary study of topics in gene organization, transcription, translation, and gene regulation. Alt. FA (4-0-4) Ogston.

MIC 531

Virology. Advanced study of human and animal viruses and their interactions with cells. Prerequisite: Microbiology 451. Alt. FA (4-0-4) Peebles.

MIC 590

Special Topics. Detailed independent study of contemporary topics in microbiology. (v-v-v) Staff.

MIC 599

Independent Study. Specialized course work designed around the particular needs of an individual student. (v-v-v) Staff.

MIC 610

Clinical Microbiology. Students will rotate through each of the basic areas of the microbiology laboratory. Specimen handling, laboratory identification of organisms, and clinical correlation are covered. Permission of instructor. Prerequisite: any core clerkship. [2 weeks] Landau.

NEUROLOGICAL SCIENCES**NEU 451**

Neurobiology. An integrated approach to the central and peripheral nervous system from an anatomic, physiologic and neurochemical standpoint is presented. Based on neuroanatomy, major systems are developed and discussed in terms of anatomic arrangement, physiologic functioning and related synaptic pharmacology. In all systems clinical lectures highlight the practical applications of basic science concepts in patient evaluation and management. (6-3-7) [78 hours] Nausieda, Hughes.

NEU 501

Introduction to Neuroscience. A review of the anatomy and physiology of the nervous system, with

Courses

particular emphasis on the structure and function of the brain and cranial nerves, will include both gross and microscopic structure, and the normal mechanisms of transmission and communication which operate at each level. (3-0-3)

NEU 503

Neuropsychology. Brain mechanisms normally involved in learning, perceptual, language, and emotional behaviors are studied, including typical and atypical development of these functions and how they may be influenced by disease, trauma, and aging. (3-0-3)

NEU 521

Neurophysiology I: Sensory System. A study of sensory and sensory-integrative processes of the nervous system includes their common features and specific attributes and how each functions to affect perception and adaptive behaviors. Course work will also include the phylogeny, ontogeny, anatomy, and physiology of each modality; and somatosensory, vestibular, visual, auditory, and chemical senses of smell and taste. Prerequisite: Neuro. Sci. 501. (3-v-3)

NEU 522

Neurophysiology II: Neurology of Motor Behavior. Course work includes normal motor behavior and motor mechanisms; the clinical syndromes that typically affect motor behavior and function; how the neurological examination can identify types of dysfunction; behavioral aspects of syndromes of the parietal and frontal lobes; the corpus callosum; facial and vocal expression; and the apraxias, as well as the mechanisms of motor control and their organization at each level. Prerequisite: Neuro. Sci. 521. (3-v-3)

NEU 601

Core Clerkship in Neurology. Patients with various neurological disorders are studied; invasive and noninvasive techniques are observed and practiced. Neuropharmacology rehabilitation and specific therapeutic programs are emphasized. Students work with both hospitalized and ambulatory patients, and the primary emphasis is on enhancing diagnostic abilities in neurological disorders. Attending physicians conduct teaching rounds six days per week. Prerequisite: Medicine-Internal 601. [4 weeks] Bergen.

NEU 602

Advanced Neurology. Students further develop their clinical skills as they participate in the outpatient activities of the neurology department including seeing patients in the movement disorder, epilepsy, muscular dystrophy, and multiple sclerosis clinics. Prerequisites: Medicine-Internal 601, Neuro. Sci. 601. FA WI SP SU [4 weeks] Bergen.

NEU 681

Neurological Research. Students participate in ongoing research projects within the department. Current areas of investigation include neuropharmacology, movement disorders, cerebrovascular disease, sleep disorders, epilepsy, neuromuscular disorders, multiple

sclerosis, and dementia. Prerequisite: Neuro. Sci. 601. FA WI SP SU [v] Bergen.

NURSING

NSG 301

Foundations of Nursing. Introductory course for the matriculating student. Emphasis is on professional concepts, health, and wellness behavior. This provides the student with the groundwork on which professional nursing is built. (4-0-4)

NSG 311

Nursing Applications I. Application and integration of the concepts of Nursing 301 through lecture, seminar, psychomotor skills lab, and clinical practicum. Corequisite: Nursing 301. (8 credits - 4 credits letter graded, 4 credits P/N)

NSG 312

Nursing Application II. Application and integration of the principles of the biological sciences through lecture, seminar, psychomotor skills lab, and clinical practicum. Corequisite: Biological Sciences 301. (8 credits - 4 credits letter graded, 4 credits P/N)

NSG 313

Nursing Application III. Continuation of Nursing 312. Corequisite: Biological Sciences 302. (8 credits - 4 credits letter graded, 4 credits P/N)

NSG 323

Heritage of Nursing. Overview of the historical influences that effect contemporary nursing practice. Contributions of major nursing leaders will be addressed. (2-0-2)

NSG 324

Parenting. An overview of current thinking and theories surrounding the complexities of parenting. Nursing interventions to support parent-child relationships will be explored. (2-0-2)

NSG 325

Women's Health Care: The Provider's Role. The unique health care needs of women throughout the life cycle are addressed. Emphasis will be on health maintenance. (4-0-3)

NSG 331

Biochemical and Physiological Aspects of Nutrition. An exploration of nutritional requirements throughout the life cycle and the biochemical and physiological aspects of nutrition. A minicourse sequence. (1)

NSG 332

Nutritional Management in Disease. Nutrient requirements and modifications in disease, including drug and diet interrelationships and nutritional support techniques. A second minicourse following Nursing 331, taken during the same quarter. Prerequisite: Nursing 331. (1)

NSG 351

Selected Topics in Rehabilitation Nursing. Selected rehabilitation concepts are applied to adult clients with

progressive or permanent illness or disability, in institutional and community settings. Prerequisites: Nursing 301, 311. (2)

NSG 352

Selected Topics in Rehabilitation Nursing: Clinical. Application of rehabilitation concepts from Nursing 351 within the nursing process; formulation and implementation of nursing care plans for adult clients. Corequisite: Nursing 351 (2)

NSG 382

Introduction to Nursing Research. An introduction to the basic concepts, techniques, and methods of the research process and evaluation of contemporary nursing research. (3-0-2)

NSG 390

Selected Topics in Nursing. A course for the registered nurse student. The course and the clinical component are prerequisite for the clinical AP. Prerequisites: Nursing 301 and 311 by course work or AP examination. (3-0-3)

NSG 401

Patient Care Management. Content focuses on leadership and management concepts appropriate for the first-level manager. Prerequisite: Behavioral Science 403. (4-0-4)

NSG 411

Nursing Application IV. Selected behavioral concepts are developed as they relate to nursing practice. Corequisite: Behavioral Science 402. (9 credits - 4 credits letter graded, 5 credits P/N)

NSG 412

Nursing Application V. Continuation of Nursing 411. Corequisite: Behavioral Science 403. (9 credits - 4 credits letter graded, 5 credits P/N)

NSG 413

Nursing Application VI. Application of leadership and management principles to the care of patients. Emphasis is placed on the organizational context of care delivery systems. Corequisite: Nursing 401. (10 credits - 2 credits letter graded, 8 credits P/N)

NSG 423

Intraoperative Nursing. The focus is on the nurse's role during the intraoperative phase of the patient's treatment. Instruction and clinical practice in nursing responsibilities will be included. (4)

NSG 424

Basic Cardiac Arrhythmias. Self-paced mastery learning mode used to help students recognize and describe common disorders of cardiac rhythm, hemodynamic mechanisms and nursing implications. Prerequisite: Biological Sciences 302. (2-0-2)

NSG 425

Cardiovascular Nursing. An in-depth study of scientific concepts relating to cardiovascular nursing practice. Prerequisite: Biological Sciences 302. (2-0-2)

NSG 426

Oncology Nursing. The theoretical components of oncology nursing presented to enhance the student's understanding of cancer as an aberrant cellular disease, manifested as a chronic illness. (3-0-3)

NSG 427

Nursing Implications of Diagnostic Procedures. Patient problems, needs, preparation, and appropriate nursing interventions are discussed in relation to major diagnostic tests for each body system. (2-0-2)

NSG 433

The Nursing Process in Health Education. Students will learn the components of the teaching-learning process and apply these to clients in a clinical experience. (2-1-3)

NSG 437

Concepts Central to Surg. Nsg. An in-depth study of concepts related to surgical nursing. Previous nursing concepts are reviewed and new theories and concepts are introduced. Prerequisite: Nursing 301. (2-0-2)

NSG 441

Independent Clinical Study. Intensive independent study in a clinical area of nursing. (v)

NSG 449

Independent Study. Student contracts with nursing faculty for independent academic study in an area of nursing. (v)

NSG 501

The Use of Concepts, Theories, and Models in Nursing Practice. Emphasis of this seminar course is on the use of models in nursing, their theoretical base and the operation of models in nursing practice. FA SP (2-0-2)

NSG 503

Physical Assessment. This course presents methods for obtaining and recording a complete data base of the patient's history; use of problem-oriented records; physical, emotional and developmental assessment; and the use and interpretation of diagnostic instruments and procedures. FA WI SU (2-5-4)

NSG 523

Cardiac Rehabilitation. An overview of topics related to cardiac rehabilitation nursing. Emphasis is placed upon critical analysis of research in content areas. (2-0-2)

NSG 524

Parenting. Same as Nursing 324 except that graduate students have an additional seminar and submit an in-depth research paper. (2-2-3)

NSG 525

Advanced Concepts in Cardiovascular Nursing. Recent advances in cardiovascular nursing and cardiology are presented as they apply to patients in an acute care setting. SP (3-0-3)

Courses

NSG 527

Current Topics in Respiratory Management. A lecture and seminar format for the presentation and discussion of current concepts in respiratory management. SU (2-0-2)

NSG 528

Nephrology Nursing. An in-depth study of renal anatomy, physiology and pathophysiology as they relate to nursing care. Current research findings are emphasized in analyzing the various forms of treatment for renal diseases. SP (2-0-2)

NSG 532

Perspectives in Trauma Nursing. Trauma is examined as a health care problem with implications for nurses in every setting. SU-even years (2-0-2)

NSG 533

Critical Care Nursing. The student will analyze nursing practice issues which affect the delivery of patient/family care in the critical care setting. FA (3-0-3)

NSG 534

Perspectives on Current Issues in Nursing. Through small group discussions and assignments, students will study selected current issues and their relationships to nursing. FA WI (2-0-2)

NSG 535

Neuroscience Nursing: Neuropathology, Patient Dysfunction, and Nursing Interventions. Selected nervous system disorders are presented including concepts of self-care and control. SP (2-0-2)

NSG 541

Nursing Consultation. Combined lecture-seminar course with emphasis on the theory of consultation. WI SU (2-0-2)

NSG 543

The Clinical Nurse Specialist. The role of the clinical nurse specialist is explored as it now exists in a variety of settings. FA SP SU (2-0-2)

NSG 551

Introduction to Radiation Therapy. The nursing role with the radiotherapy patient will be emphasized. Radiobiology, radiation safety, and the rationale and methods for radiation treatment will be explored. WI (2-0-2)

NSG 588

Directed Research. Independent research experience to test theory and/or gather data under the guidance of a faculty member. (v)

NSG 591

Independent Clinical Study. Intensive independent study in a clinical area of nursing. Prerequisite: Health Care Education 583. (v)

NSG 598

Master's Thesis. Students who elect to write a master's thesis contract with their major advisor and

the associate dean. Minimum enrollment: three quarter hours each quarter. (v)

NSG 599

Independent Study. Student contracts with nursing faculty for independent academic study in a selected area of nursing. (v)

NSG 601

Theory Development. Exploration of theory construction through the study of the philosophy of science. Course extends over two quarters. FA WI (2-0-4)

NSG 641

Developing Leadership Style. Identification and analysis of the current status of nursing. Development of leadership styles for the advancement of the nursing profession is stressed. SU (2-0-2)

NSG 671

Research Design and Methods I. The first in a two-course research sequence. Focus is on analysis of selected research studies. Prerequisites: Health Care Education 583, Prev. Med. 541 or equivalent; Nursing 601 is recommended. WI (3-0-3)

NSG 672

Research Design and Methods II. An in-depth analysis of research approaches including historical, descriptive, correlational, quasi-experimental, and experimental. Prerequisite: Nursing 671. SP (3-0-3)

NSG 688

Directed Research. Independent research experience to test theory and/or gather data under the guidance of a faculty member. (v)

NSG 689

Research Grantsmanship. This course provides the knowledge base and skills essential to the process of development and submission of a research grant application. Prerequisite: Nursing 672. SU (1-0-1)

NSG 691

Directed Clinical Nursing. At least 20 quarter hours of individually designed courses of independent study are planned conjointly by the Dr. al student and the academic advisor. (v)

NSG 696

Clinical Seminar: Application of Doctoral Education in Nursing in Clinical Practice. Students and faculty critically analyze the components of clinical practice in nursing at the Dr. al level. SU (2-0-2)

NSG 699

Thesis Research. Individual guidance of independent research. Doctoral candidate must be enrolled for at least three quarter hours each quarter until thesis has been defended. (v)

NURSING - ANESTHESIA

NAN 511

Anesthesia Nursing Concepts Seminar and Practicum

I. Principles and skills basic to the practice of anesthesia are discussed. Clinical practice focuses on patient assessment. Prerequisite: Nursing-Anesthesia 521. WI (v-v-4)

NAN 512

Anesthesia Nursing Concepts Seminar and Practicum II. Anatomy, physiology, and pathophysiology in relation to anesthesia are investigated. Supervised clinical practice of anesthesia in relation to total patient care is provided. Prerequisite: Nursing-Anesthesia 511. SP (v-v-6)

NAN 513

Anesthesia Nursing Seminar. Discussion of the clinical specialty areas. Integration of concepts from principles of anesthesia into specialty areas of pediatrics and obstetrics. Prerequisite: Nursing-Anesthesia 512. Corequisite: NAN 595. SU (3-0-3)

NAN 521

Chemistry and Physics in Anesthesia. I. An introduction to chemistry and physics in anesthesia. Major emphasis is on the principles of organic chemistry. FA (3-0-3)

NAN 522

Chemistry and Physics in Anesthesia. II. Continuation of Nursing-Anesthesia 521. This course focuses on physics in relation to anesthesia practice. WI (3-0-3)

NAN 531

Basic Pharmacology in Anesthesia. An introduction to pharmacokinetics and its application to clinical anesthesia including anesthetic agents and drugs used in the operating room. (2-0-2)

NAN 541

Pharmacology in Anesthesia. Pharmacology in relation to anesthesia including pharmacology of specific drugs, clinical application, and drug interactions. Prerequisite: Nursing-Anesthesia 531. (6-0-6)

NAN 595

Practicum in Anesthesia. Experience in clinical anesthesia with supervision by a CRNA and/or anesthesiologist. Corequisite: Nursing-Anesthesia 513. SU (0-21-7)

NAN 600

Residency in Anesthesia. Nursing. A 52-week, 4-quarter residency following completion of the anesthesia nursing curriculum which provides the opportunity for the student to become clinically proficient in the practice of anesthesia. Journal clubs and conferences will be included. No academic credits given.

NURSING - COMMUNITY HEALTH

NCH 511

Community Health Nursing Concepts and Issues Seminar. An introduction to current topics, issues, concepts and problems relative to community health nursing. WI (3-0-3)

NCH 512, 513

Adult Health Concepts Seminar and Practicum I, II. Integration of the concepts of Nursing 503, pathophysiology and management of health and specific chronic diseases and acute and emergency conditions in adults. Prerequisite: Nursing 503. SU FA (v-v-6)

NCH 514

OB/GYN Health Concepts Seminar and Practicum. Assessment and management of obstetrical and gynecological conditions. Included are counseling, teaching and management of family planning techniques. Prerequisites: Nursing 501, 503. WI (v-v-6)

NCH 515

Pediatric Health Concepts Seminar and Practicum. The growth and development of children and the pathophysiology, assessment, and management of health and specific acute pediatric illnesses. Prerequisite: Nursing 503. SP (v-v-6)

NCH 522

Community Assessment I. Assessment and diagnosis of the dynamic components of a specific community. Field experiences for the final six weeks is included. Recommended: Nursing-Community Health 511. SU (4-0-4)

NCH 523

Community Assessment II. The analysis and validation of community diagnosis and the development of a nursing intervention proposal to address community health problems. Seminar. Prerequisite: Nursing-Community Health 522. FA (4-0-4)

NCH 533

Pediatric Screening Measures. Physical, cognitive, and psychosocial development from infancy through adolescence is discussed in developmental assessment with a variety of screening tools. WI (3-0-3)

NCH 544

Epidemiology. Principles and methods of epidemiologic investigation of infectious and noninfectious diseases. Laboratory work includes methods of collecting and analyzing field observations. SP (2-3-3)

NCH 561

Role of the Nurse Practitioner. A seminar dealing with clinical and professional problems and issues relative to the role of community nurse practitioner. FA (2-0-2)

NCH 571

Biostatistics. Collection, tabulation, and elementary analysis of data including vital statistics, treatment of rates, distribution of variety, and sampling variations. Prerequisite: undergraduate statistics course. SP (3-0-3)

NCH 600

Residency in Community Nursing. A two-quarter residency following all required courses. The student functions in a setting which allows for the integration of clinical assessment management, nursing, and community organization. No academic credits given.

NURSING - GERONTOLOGICAL

NGR 511

Gerontological Nursing Concepts Seminar and Practicum I. Concepts, theories, clinical approaches, and research findings related to the active older adult in the community are discussed and applied in clinical practice. Prerequisite: Nursing 501. WI (v-v-4)

NGR 512

Gerontological Nursing Concepts Seminar and Practicum II. Focus is on common health problems of older persons. Emphasis is placed on the nursing components of prevention, health maintenance, and restorative measures. SP (v-v-7)

NGR 513

Gerontological Nursing Concepts Seminar and Practicum III. Continuation of Nursing-Gerontological 512. Includes completion of clinical project. SU (v-v-7)

NGR 514

Gerontological Nurse Practitioner Concepts. A seminar focusing on organizational, economic, legal, and behavioral factors influencing implementation of the gerontological nurse practitioner role. Prerequisite: Nursing-Gerontological 513. (3-0-2)

NGR 515

Gerontological Nurse Practitioner Practicum. Directed practice in a variety of settings is provided. Prerequisite: Nursing-Gerontological 513. (v-v-1)

NGR 522

Physiological Aspects of Drugs in the Elderly. Physiological aspects of drug absorption, distribution, metabolism, and excretion, with special reference to the aging adult. Factors involved in assessment of drug-related health problems are identified. WI (2-0-2)

NGR 589

Geriatric/Gerontological Internship. The student will gain maximum experience in providing expert care for aging adults and will have line responsibility and accountability for an assigned case load. (12)

NGR 591

Independent Clinical Study. Intensive independent study in geriatric nursing. (v)

NURSING - MEDICAL/SURGICAL

NMS 511

Medical/Surgical Nursing Concepts Seminar and Practicum I. The seminar focuses on nursing problems with discussion of relevant theories, clinical approaches, and research findings. The practicum includes study and observation of the role of the clinical specialist, and experience with patients to prepare for practice as a clinical specialist in a particular specialty area. Prerequisites: Health Care Education 583, Nursing 501. WI (v-v-4)

NMS 512

Medical/Surgical Nursing Concepts Seminar and Practicum II. Continuation of content covered in Nursing-Medical/Surgical 511. SP (v-v-7)

NMS 513

Medical/Surgical Nursing Concepts Seminar and Practicum III. Continuation of Nursing-Medical/Surgical 512. Includes completion of a clinical project. SU (v-v-7)

NURSING - MIDWIFERY

NMW 501

Health Care of Women and Neonatal Assessment. Introduction to the theoretical framework for and basic skills used in the practice of nurse midwifery. Clinical experience and seminar are designed to assist students in taking histories and performing physical examination. FA (v-v-4)

NMW 511

Low Risk Management. The focus of this course is on preventive health care for low risk women and newborns. Clinical experiences and course content include counseling and scientifically-based management regimens. Prerequisites: Nursing-Midwifery 501, Nursing 503. Corequisite: Biological Sciences 531. WI (v-v-7)

NMW 512

Moderate Risk Management. The utilization of the nurse-midwifery process in the management of maternal and neonatal problems which place the family at moderate risk will be discussed; e.g., issues surrounding fetal/neonatal/maternal well-being and commonly occurring complications in the antepartal, intrapartal, and postpartal phases of the reproductive cycle. Prerequisite: Nursing-Midwifery 511. Corequisite: Biological Sciences 532. SP (v-v-7)

NMW 513

Advanced Management. The course focuses on recognition of real or potential complications surrounding the reproductive couple and neonate with emphasis on anticipatory guidance and management. Prerequisite: Nursing-Midwifery 512. SU (v-v-10)

NMW 561

Contemporary Issues in Nurse Midwifery. An exploration of issues, including their historical development, which impact the practice of nurse midwifery and the professional role of nurse midwives as nurses and as members of a health care team. Prerequisite: Nursing-Midwifery 511. SU (2-0-2)

NURSING - ONCOLOGY

NOC 511

Oncology Nursing Concepts Seminar and Practicum I. Seminar focuses on oncology nursing problems with discussion of relevant theories, clinical approaches and research findings. The practicum includes study and

observation of the role of the clinical specialist in oncology nursing. Prerequisites: Nursing 501, Health Care Education 583, Pathophysiology 522. WI (v-v-4)

NOC 512

Oncology Nursing Concepts Seminar and Practicum II. Continuation of Nursing-Oncology 511. SP (v-v-7)

NOC 513

Oncology Nursing Concepts Seminar and Practicum III. Continuation of Nursing-Oncology 512. Includes completion of a clinical project. SU (v-v-7)

NURSING - PARENT/CHILD HEALTH

NPC 421

Perinatal Nursing. An in-depth exploration of concepts and issues in perinatal nursing practice in normal and high risk situations. (3-0-3)

NPC 461

Orthopedic Problems in Childhood. In-depth study of childhood musculoskeletal growth and development and multidisciplinary management of disruptions. Builds on pediatric medical/surgical concepts. (3-0-3)

NPC 503

Parent/Child Assessment. This course will examine new child assessment techniques and tools which will prepare nurses to adapt and utilize new information in their health care practice. (2-1-3)

NPC 511

Parent/Child Health Nursing Concepts Seminar and Practicum I. Focuses on the theoretical bases for nursing interventions with families who are experiencing physiological/psychological problems. Seminars will also focus on concepts impacting families and theorists and researchers in these areas. Prerequisites: Nursing 501, Health Care Education 583. WI (v-v-4)

NPC 512

Parent/Child Health Nursing Concepts Seminar and Practicum II. Continuation of Nursing-Parent/Child Health 511. SP (v-v-7)

NPC 513

Parent/Child Health Nursing Concepts Seminar and Practicum III. Continuation of Nursing-Parent/Child Health 512. SU (v-v-7)

NPC 521

Normal and Pathological Parent-Infant Interaction. Course will focus on normal infant development and parent-infant interaction. Additionally, abnormal responses between infants and parents and early intervention will be explored. (2-0-2)

NPC 621

Seminar on Parent-Infant Interaction. Advanced seminar on theory and research related to parent-infant interaction. Prerequisites: 18 quarter hours of course work in child development and/or parent/child nursing; Nursing 601, 683. (3-0-3)

NURSING - PSYCHIATRIC

NPS 511

Psychiatric/Mental Health Nursing Concepts Seminar and Practicum I. The seminar uses a systems orientation to consider the assessment of individuals using brief and individual psychotherapies. Prerequisites: Behavioral Science 501, Anat. 462. WI (v-v-7)

NPS 512

Psychiatric/Mental Health Nursing Seminar and Practicum II. Seminars focus on psychotherapy with families and groups. Prerequisite: Nursing-Psychiatric 511. SP (v-v-7)

NPS 513

Psychiatric/Mental Health Nursing Seminar and Practicum III. Therapeutic intervention arising from neuro-psychopathology. Prerequisite: Nursing-Psychiatric 512. SU (v-v-7)

NPS 521

Comparative Theoretical Methods in Psychiatric Nursing. Using the knowledge base developed in Nursing 501, detailed study of Peplau's interpersonal model, Travelbee's process model, and one broad-based model will be made. Prerequisite: Nursing 501. (1-3-2)

NPS 561

Integrating Psychobiological Theories of Affective Disorders into Psychiatric Nursing Practice. This course offers a framework for developing a holistic approach in providing nursing care to patients with affective disorders. Principles of neuroanatomy and physiology, psychopharmacology, and assessment of behavioral response to treatment are interwoven with nursing interventions and treatment protocols and issues. (3)

CLINICAL NUTRITION

NTR 503

Dietetics I. The student will learn the purpose, organizational structure, and function of a food service department in a health care setting. Limited to clinical nutrition students in Track I. FA (3-0-3)

NTR 504

Dietetics II. The student will conduct original research in a food service area. Results will be presented to the department. Limited to clinical nutrition students in Track I. Prerequisite: Nutrition 503. WI (3-0-3)

NTR 505, 506

Dietetics III, IV. Emphasis is placed on the technical, conceptual, and humanistic skills which provide the foundation for clinical dietetics practice. Limited to clinical nutrition students in Track I. SP SU (3-0-3) (3-0-3)

NTR 510

Current Professional Issues. The student will participate in discussions intended to examine professional

Courses

issues in the field of dietetics that are of current interest and concern. Limited to clinical nutrition students. FA (3-0-3)

NTR 511, 512

Practicum I, II. The student will participate in experiences designed to develop technical, human, and conceptual skills essential for management of food-service systems. Limited to clinical nutrition students in Track I. FA WI (0-24-3) (0-24-3)

NTR 513, 514, 515

Practicum III, IV, V. The student will participate in experiences designed to develop the technical, conceptual, and humanistic skills necessary to function in the practice of clinical dietetics. Limited to clinical nutrition students in Track I. SP SU FA (0-24-3) (0-24-3) (0-v-2)

NTR 521

Human Metabolism I. Lectures describe the synthesis and degradation of nucleic acids and proteins. Limited to clinical nutrition students or permission of instructor. FA (4-0-4)

NTR 522

Human Metabolism II. Lectures describe anabolic and catabolic pathways of carbohydrates, lipids and amino acids. Limited to clinical nutrition students or permission of instructor. Prerequisite: Nutrition 521. WI (4-0-4)

NTR 524

Advanced Mineral and Vitamin Metabolism. Lectures and readings describe current consensus on the functional aspects of these micronutrients in man. Permission of instructor required. Prerequisite: Nutrition 522. (3-0-3)

NTR 527

Advanced Protein Metabolism. Lectures and readings review mammalian protein metabolism in liver, muscle, intestine, and brain and emphasize metabolic changes in response to various diets, infection, and certain disease states. Permission of instructor required. Prerequisite: Nutrition 522. (3-0-3)

NTR 528

Advanced Carbohydrate and Lipid Metabolism. Lectures emphasize the role of diet composition and starvation in the regulation of carbohydrate and lipid metabolism. Permission of instructor required. Prerequisite: Nutrition 522. (4-0-4)

NTR 541, 542

Interrelationships of Nutrition and Disease I, II. The student will describe current theories of pathophysiology, diagnosis, and treatment for nutritionally related disorders. Limited to clinical nutrition students. Prerequisite: Nutrition 522. SP SU (4-0-4) (4-0-4)

NTR 551

Nutrition in Human Development I. Survey of critical nutrition issues and concerns during the prenatal, infant, childhood, and adolescent stages of life. Limited

to clinical nutrition students or permission of instructor. FA (4-0-4)

NTR 552

Nutrition in Human Development II. Survey of critical nutrition issues and concerns during adult stages of the life cycle. Limited to clinical nutrition students or permission of the instructor. Prerequisite: Nutrition 551. WI (4-0-4)

NTR 571

Management in Clinical Dietetics. Emphasis is on policy planning and implementation, decision-making processes, financial considerations and budget control, personnel policy implementation, and how they relate in the management of a clinical dietetics area. Limited to clinical nutrition students. Prerequisite: Hlth. Sys. Mngmnt. 574. SU (3-0-3)

NTR 585

Applied Research Problem. Under faculty supervision, the student will conduct a research project and prepare a written research report which includes a statement of the problem, review of the literature, research methodologies, findings, discussion, and conclusions. Project approval by both the faculty preceptor and the course director is required six weeks prior to enrollment. Limited to clinical nutrition students. May be repeated to maximum of five credits. Prerequisite: Health Care Education 581. (2 to 5)

NTR 590

Special Topics. Special topics in nutrition will be offered in response to specific needs identified by the faculty and/or a group of students. (v-0-v)

NTR 592

Individualized Clinical Practice. For students who wish advanced experience in one area of clinical nutrition practice. Limited to clinical nutrition students in Track I. (0-v-v)

NTR 599

Independent Readings. The student completes a literature research and written paper on a topic related to nutrition that will complement his/her learning goals. Arrangements for study must be made with the preceptor prior to registration. (0-0-v)

OBSTETRICS AND GYNECOLOGY

OBG 601

Core Clerkship in Obstetrics and Gynecology. A study of the female reproductive tract with emphasis on routine gynecologic health care maintenance and patient education. Identification and management of high-risk pregnancy, infertility and other endocrinopathies, gynecologic oncology, family planning, psychosomatic disorders, and normal psychological changes in obstetrics and gynecology as well as gynecologic surgery are some of the areas covered in detail. Prerequisite: Clinical Concepts and Skills 502. FA WI SP SU [8 weeks] MacLin.

OBG 621

Normal Obstetrics. Emphasis is on the ideal support of the normal pregnant patient. Specific areas covered are preparation for childbirth (Lamaze, etc.), psychology of childbirth, alternatives to childbirth, Leboyer method, and patient-infant bonding. Prerequisite: Obstetrics and Gynecology 601. FA WI SP SU [4 weeks] Merrick.

OBG 661

Gynecologic Oncology. The diagnosis, management and follow-up of female reproductive tract tumors. Students are introduced to the use of diagnostic procedures such as colposcopy, laparoscopy, and biopsies, as well as treatment with chemotherapy and cancer surgery. Prerequisite: Obstetrics and Gynecology 601. FA WI SP SU [4 weeks] Yordan.

OBG 666

Ambulatory/Reproductive Health Care. Students are provided additional clinical experience in family planning practices. Students interview and examine ambulatory patients, prescribe methods of family planning and conduct follow-up under supervision of the staff. Prerequisite: Obstetrics and Gynecology 601. FA WI SP SU [4 weeks] Neches.

OBG 667

Reproductive Endocrinology and Infertility. Diagnostic evaluation and therapeutic management of couples with infertility problems and women with gynecologic endocrine disorders are studied. Students participate in routine diagnostic studies, scrub on surgical reconstructive procedures involving the female reproductive system, participate in the activities of the in-vitro fertilization program, and may obtain laboratory experience. Prerequisite: Obstetrics and Gynecology 601. FA WI SP SU [4 weeks] Dmowski.

OBG 668

Perinatology. Emphasis is on the identification and management of high-risk pregnancy. Ultrasonography, amniocentesis, medical and surgical complications of pregnancy, and operative obstetrics are some of the specific topics dealt with in detail. Students participate in antepartum management of hospitalized and ambulatory pregnant patients with high-risk conditions. Additional exposure to intrapartum problems can be arranged. Prerequisite: Obstetrics and Gynecology 601. FA WI SP SU [4-8 weeks] Strassner.

OCCUPATIONAL THERAPY**OCC 450**

Special Studies. Introduction to medical terminology and computer science utilizing PLATO, the computer-based education system. FA (0-v-1) Hughes, Staff.

OCC 461

Health and Development. The nature of health, illness, and disability and their effect on the fulfillment of developmental roles and functions throughout the life span. FA (3-0-3) Opacich.

OCC 463

Principles of Movement. The biomechanics of movement; and the application of neuromusculoskeletal function to the performance of daily living tasks and activities are emphasized. FA (2-2-3) Stallings.

OCC 465

Group Dynamics. Didactic and experiential activities designed to familiarize the student with basic principles underlying group process and group behavior and clinical application of these principles in occupational therapy are studied. Prerequisites: Occupational Therapy 501, Psychiatry 501. WI (2-2-3) Benjamin.

OCC 495, 496

Fieldwork I, II. Supervised field experience applying theoretical concepts in occupational therapy with patients having psychosocial/physical dysfunctions, including designing a special project to achieve advanced clinical competency either in research, management, education, or practice. Prerequisite: all previous required course work. WI SP (v-v-6) (v-v-6) Hughes.

OCC 501

Activity Theory and Skills. The focus is on teaching, analysis, and therapeutic application of activities. Analysis, history, and skills in areas of play/leisure, self-care, homemaking, and work and development of skills in performing selected activities are studied in-depth. Theoretical constructs which provide the basis for occupational therapy practice are explored. FA (2-4-4) Silerzio, Staff.

OCC 502

Occupational Therapy History and Philosophy. An overview of the historical foundations of occupational therapy as they relate to the frames of reference and theoretical perspectives upon which the field is based. Prerequisites: Occupational Therapy 461, 501. WI (3-0-3)

OCC 505

Pathophysiology in Occupational Therapy. Emphasis is on the reasons for breakdown of structure and function, the location of lesions, effects on the bodily systems, and the implications of these conditions for the client's life-style. WI (2-0-2) Stallings.

OCC 506

Medical Conditions Seminar. A presentation and discussion of selected medical, surgical, neurological, and orthopedic conditions with emphasis on their etiology, treatment, and prognosis. SP (2-0-2) Opacich.

OCC 510

Special Topics Seminar. Seminars address those nonclinical issues that are dictated by societal events and changes and are integral to the performance of occupational functions. SP (2-0-2-3) Schroder-Kearns.

OCC 511

Occupational Therapy Intervention I. Students learn theories and conceptual models for intervention in the disease processes of psychosocial disorders which can be applied in medical, educational, and community

Courses

settings. Simulated and actual patient management issues relative to psychosocial disorders are presented and discussed. Includes preclinical experiences in psychiatric settings. Prerequisites: Occupational Therapy 465, 503. SP (v-v-6) Walens.

OCC 512

Occupational Therapy Intervention II. Theories and conceptual models of intervention are presented, based on biomedical principles and approaches of occupational therapy evaluation and on the treatment of physically disabled individuals. Information is reviewed chronologically across the life span for both acute and chronic conditions. Includes preclinical experience in selected settings. Prerequisites: Occupational Therapy 463, 502, 506, 541, Neuro. Sci. 501. SU (v-v-6)

OCC 513

Occupational Therapy Intervention III. Theories and conceptual models of intervention are presented, based on neurodevelopmental principles of and approaches to occupational therapy evaluation and treatment of individuals with central nervous system disorders. Information is reviewed chronologically across the life span for both acute and chronic conditions. Includes preclinical experiences in selected settings. Prerequisite: Occupational Therapy 512. FA (v-v-6)

OCC 514

Occupational Therapy Intervention IV. Theories and conceptual interventions with pediatric and geriatric populations are studied, including presentations and discussion of simulated and actual patient management issues relative to each population. Prerequisites: Occupational Therapy 511, 513. SU (v-v-4) Stallings.

OCC 521

Etiology of Occupational Behavior. A critical review of theories and practices on occupational therapy with projection of future models of practice. Includes examination of scientific knowledge, models of health care, sociological features of occupational therapy practice, and the study of human occupation and its description in illness. Prerequisite: Occupational Therapy 502. SU (4-0-4) Novak.

OCC 531

Principles and Methods of Education. An exploration of the use of behavioral objectives, taxonomical levels of learning, and the application of the theories of classical and contemporary theories. A variety of media and techniques to enhance clinical and classroom teaching will be emphasized. SU (2-0-2) Hughes.

OCC 533

Principles and Methods of Supervision. Introduction to the supervisory process based on principles related to education, interpersonal processes, and management. Prerequisite: Occupational Therapy 531. Corequisite: OCC 545. FA (3-0-3) Hughes.

OCC 541

Tests and Measurements in Occupational Therapy. Administration, scoring, interpretation, and reporting of

selected tests and informal assessments useful in an occupational therapy evaluation of clients of varying ages and disability. Prerequisite: Occupational Therapy 502. SP (4-0-4) Opacich.

OCC 543

Related Assessment and Evaluation. A variety of instruments which can be utilized to determine level and characteristics of neurodevelopmental function/dysfunction are surveyed. Test construction issues are addressed and needs for further test development explored. Permission of instructor. Prerequisite/Corequisite: statistics course or equivalent experience as determined by instructor. WI (3-0-3) Opacich.

OCC 545

Management Issues in Occupational Therapy. Exploration and involvement in administrative activities related to effective delivery of occupational therapy services; includes budgeting, personnel policies, and long- and short-term program planning. Prerequisites: organizational behavior course, Occupational Therapy 521. FA (2-0-2) Novak.

OCC 551

Sensory Integration Assessment. Focuses on standardized tests and clinical observations related to sensory integration (SCSIT, SCPRN). Introductory sensory integrative theory and test construction issues are pursued. The course serves as the test mechanics phase for CSSID certification. Prerequisite/Corequisite: introductory statistics or equivalent experience as determined by instructor. FA (4-0-4) Opacich.

OCC 552

Sensory Integration: Theory and Application I. Presents an analysis of sensory integrative theory as it relates to normal and abnormal CNS development, emphasizing sensory processing disorders in the young child; neural systems underlying bilateral integration, praxis, form and space perception, and other parameters. The material provides the basis for forming hypotheses pertinent in interpretation of sensory integrative diagnostics, as well as an in-depth study of related areas of research. Prerequisite: Permission of instructor. WI (4-0-4) Stallings.

OCC 553

Sensory Integration: Theory and Application II. Emphasis is on development of the rationale for treatment, hypothesis formulation, and implementation of sensory integrative theory. Application to both traditional and nontraditional populations is included and development of artistry in therapy is expected. Prerequisite: Occupational Therapy 552 is recommended or documented experience with the SCSIT. SP (4-0-4) Opacich.

OCC 554

Sensory Integration: Theory and Application III. An exploration of more recent and advanced theories related to sensory registration, organization of praxis and language, and the role of the limbic system in sensory integration. The second part of the course will consider implications of sensory integrative disorders in

the neonatal, psychiatric, and gerontological populations. Prerequisite: Occupational Therapy 552. SU (4-0-4) Stallings.

OCC 561, 562, 563, 564

Occupational Therapy Practicum I, II, III, IV. Supervised field experience in the exploration and applications of sensory integrative techniques with varied developmental and diagnostic populations. Prerequisite: Occupational Therapy student status or permission of practicum coordinator. FA WI SP SU (2 or 3 credits each term)

OCC 571

Occupational Therapy Theory I. An historical perspective of the development of occupational therapy laying the groundwork for exploration of philosophy, values, theoretical constructs, and frames of reference. A tutorial learning style will assist the therapist in integrating this knowledge with his/her current clinical practice. WI (3-0-3) Novak, Walens.

OCC 572

Occupational Therapy Theory II. An analysis of those factors currently influencing occupational therapy's development and an exploration of the phylogeny of occupation as a treatment modality. A final project will focus on the student's identification of his/her own conceptual model of practice. SP (2-0-2) Novak, Walens.

OCC 581

Research Implementation. Consists of independent work, under the supervision of a faculty advisor, towards implementation of a research project designed in Health Care Education 581. The course leads to the writing of a research paper incorporating clinical investigation and professional writing skills. May be repeated for a total of six required credits. Prerequisite: Health Care Education 581. WI SP SU (v-v-v) Hughes.

OCC 585

Research Proposal. Completion of a departmental proposal prior to the implementation of a research project. Prerequisite: Occupational Therapy 581. SP SU (0-v-3) Hughes, Staff.

OCC 590

Advanced Topics Seminar. Seminars which address clinical entities in nontraditional areas of practice and concern of occupational therapy. Prerequisite: Occupational Therapy 496. SU (2-0-2) Hughes, Staff.

OCC 598

Thesis. Completion of a departmental project, based on the research proposal, for a master's degree thesis relevant to occupational therapy. Prerequisite: Occupational Therapy 585. SP SU (0-v-6) Hughes, Staff.

OCC 599

Independent Study. Creative project designed by the student and supervised by faculty. (v-v-v)

PATHOLOGY

PTH 504

General Pathology. The general concepts of pathology are studied, with an introduction to degeneration, inflammation, immune response, neoplasia and metabolic and toxic pathological processes. Lectures and seminar groups are accompanied by laboratory work in the microscopic anatomy of pathological changes. Prerequisites: Anat. 451, 472. FA [65 hours] Templeton.

PTH 505, 506

Systemic Pathology and Clinical Pathology I, II. A basic systemized study of human diseases affecting the various organ systems will be presented in lectures, seminars, and laboratory sessions. Concepts covered in Pathology 504 will be stressed and correlated with the special pathology of organ systems and their functional and structural alterations. Clinical pathology will provide a basic understanding of the clinical laboratory. Prerequisite: Pathology 504. WI SP [156 hours] Haber.

PTH 601

Pathology Clerkship. The primary emphasis is on techniques and procedures used in autopsy pathology performed under the direction of a departmental faculty member. In addition, there is active participation in surgical pathology. A review of systemic pathology and cytology is provided. Available as a four-week elective only by special arrangement. Prerequisite: Medicine-Internal 601. FA WI SP SU [8 weeks] Weinstein.

PATHOSIOLOGY

PPH 522

Biology of Cancer. Topics covered are: epidemiology of cancer; cell growth and proliferation; carcinogenesis; immunity and cancer; radiation biology; chemotherapy; mechanisms of metastasis; and tumor products. FA (4-0-4)

PEDIATRICS

PED 601

Core Clerkship in Ped. The principles and practice of care from birth through adolescence are studied by direct patient contact. The primary objective is to provide an opportunity for students to become proficient in the clinical basis of pediatric diagnosis and therapy. Prerequisite: Clinical Concepts and Skills 502. FA WI SP SU [8 weeks] Jung.

PED 602

Pediatric Ambulatory Care. There is heavy emphasis on the study of normal growth, development, and behavior of the child and adolescent. All aspects of the provision of ambulatory care are studied. Prerequisite: Ped. 601. FA WI SP SU [4-8 weeks] Waskerwitz.

PED 603

Introduction to Newborn Medicine. An introduction to the care of newborn infants and mothers, with emphasis on the normal sequence of events in the birth-recovery period, adaptation of baby and mother during the postpartum period, and care of the most common complications occurring at this age. Prerequisite: Ped. 601. FA WI SP SU [4-8 weeks] Meier.

PED 604

Adolescent and Young Adult Medicine. The student is provided with direct experience in the care of inpatients and outpatients. The student is provided experience with disease processes unique to adolescents or manifested differently in this age group as compared to other age groups. FA WI SP SU [4-8 weeks] Strokosch.

PED 605

Advanced Ped. Advanced studies in pediatrics and related disciplines provide increased depth and degree of responsibility in patient care. The clerkship also serves as a preparatory training phase for postdoctoral residency experience. Prerequisite: Ped. 601. FA WI SP SU [4-8 weeks] Christian.

PED 611

Pediatric Cardiology. Both ambulatory and inpatient experience are obtained in caring for children with heart disease. Correlation of x-ray and electrocardiographic and cardiac catheterization data with physical findings is intensively studied. The student participates in intraoperative and postoperative surgical management. Prerequisite: Ped. 601 or Medicine-Internal 601. FA WI SP SU [4-8 weeks] Bucheleres.

PED 621

Pediatric Endocrinology. Students will participate in clinical care of hospitalized and office patients. Patients will be seen with a variety of disorders including short stature, precocious or delayed puberty, hypo or hyperthyroidism, adrenal hyperplasia, diabetes, hypoglycemia, and obesity. Prerequisite: Ped. 601. FA WI SP SU [4 weeks] Mueller.

PED 622

Emergency Ped. At least 30-40 hours per week includes daily attendance in the pediatric emergency room and night call responsibility. The student will be required to maintain a log of patients seen and procedures performed, to attend teaching conferences given by a pediatrician, and to attend the didactic lecture on a suitable topic at one of the emergency pediatric conferences. Prerequisite: Ped. 601. FA WI SP SU [4 weeks] Waskerwitz.

PED 624

Pediatric Critical Care. Emergency medicine is the essence of this course. There is an emphasis on acquiring a wide knowledge of the latest remedies, resourcefulness, and a good command of emergency procedures and equipment. Prerequisite: Ped. 601. FA WI SP SU [4-8 weeks] Guerrero-Tiro.

PED 626

Pediatric Nephrology. Emphasis will be on normal and abnormal renal function, electrolyte imbalances, proteinuria, hematuria, hypertension, urinary tract infection and developmental diseases of the kidney and urinary tract. Prerequisite: Ped. 601. FA WI SP SU [4-8 weeks] Levy, London.

PED 631

Pediatric Radiology. Students observe radiologic procedures and participate in analyses, reviews, and general radiology conferences. Analysis involves assessment of appropriateness of an examination, detection of pertinent findings, interpretation of findings, and synthesis of interpretation and clinical presentation into reasonable diagnosis. Prerequisite: Ped. 601. FA WI SP SU [4-8 weeks] Gardner.

PED 641

Pediatric Allergy/Clinical Immunology. The clinical approach to the problems of allergy and immunology in children and adults is studied. Special studies of acute and chronic respiratory tract and dermatologic conditions are emphasized. Patients with circulating and cellular antibody disorders are investigated. The inpatient and outpatient facilities of the Medical Center are used. Prerequisite: Ped. 601. FA WI SP SU [12 weeks] Chudwin.

PED 642

Pediatric Hematology/Oncology. This course provides an introduction to the care of children with a variety of hematologic disorders, or malignancies of childhood. Students will attend consultations with radiologists, pathologists, and surgeons involved in the diagnosis of malignant diseases. Daily ward rounds for inpatients are required as well as outpatient clinics which are held three half-days a week. Prerequisite: Ped. 601. FA WI SP SU [4-8 weeks] Kaiser.

PED 646

Pediatric Infectious Diseases. The focus is on clinical and laboratory evaluation of pediatric infections. Correct use of laboratory facilities is stressed. Pathophysiology of infectious diseases, differential diagnosis, and antibiotic use are discussed on daily ward rounds and weekly conferences. Prerequisite: Ped. 601. FA WI SP SU [4 weeks] Lamprecht.

PED 671

Pediatric Pulmonary Medicine. This elective includes: a review of developmental and clinical pulmonary physiology, current diagnostic and therapeutic modalities, respiratory manifestations of diseases and other problems in children. Prerequisite: Ped. 601. FA WI SP SU [4 weeks] Gibson.

PHARMACOLOGY

PHR 303

Nursing Pharmacology I. Course covers concepts affecting absorption, distribution, biotransformation, elimination, dose-response relationships, and drug

receptors. Prerequisite: general physiology course. (2-0-2)

PHR 304

Nursing Pharmacology II. Continuation of Pharmacology 303. Pharmacological agents, such as autacoids, cardiovascular, renal, and endocrine, are discussed and applied to nursing practice. Prerequisite: Pharmacology 303. SP (2-0-2)

PHR 501

Medical Pharmacology I. Introduction to the physiochemical factors governing drug receptor actions and the major areas of autonomic, neuropharmacology, and psychopharmacology. Prerequisites: Biochem. 473, Neuro. Sci. 451, Physiol. 452. FA (4-1-4) [53 hours] Moon.

PHR 502

Medical Pharmacology II. Topics include anesthetic agents, analgesics, sedatives and hypnotics, cardiovascular and respiratory agents, diuretics, hypoglycemic agents, drugs acting on the blood and blood-forming organs and toxicology. Prerequisite: Pharmacology 501. WI (4-1-4) [37 hours] Moon.

PHR 503

Medical Pharmacology III. The pharmacology of antibiotics and cancer chemotherapeutic agents. Prerequisite: Pharmacology 502. SP (2-0-2) [18 hours] Moon.

PHR 521

Laboratory Instrumentation. The course covers the principles and applications of experimental equipment. Instrumentation will include: ultraviolet and visible spectrophotometry, spectrophotofluorometry, thin-layer chromatography, column chromatography, high pressure liquid chromatography, atomic absorption, liquid scintillation spectrometry, isotope use and handling, pH adjustment, sample weighing, melting point determination, hematocrit determination, centrifugation, and glassware cleaning. SP (0-6-3) Parkhurst.

PHR 551

Pharmacokinetics. Basic principles of the dynamics of absorption, distribution, and elimination under normal conditions and of selected disease states are presented. Prerequisite: Pharmacology 503. WI (3-0-3) Nora, Parkhurst.

PHR 591

Advanced Topics in Pharmacology. A series of faculty and student presentations and discussions addressing any advanced topic related to pharmacology. FA WI SP (2-0-2) Prancan.

PHR 598

Research in Pharmacology. By special arrangement. (v) Prancan.

PHR 599

Independent Study. (v)

PHR 611

Neuropharmacology I. A seminar course presenting both preclinical and clinical aspects of drugs used in

the treatment of neurologic and psychiatric disorders. Prerequisite: Pharmacology 503. FA (3-0-3) Klawans.

PHR 612

Neuropharmacology II. Continuation of Pharmacology 611. WI (3-0-3) Klawans.

PHR 613

Neuropharmacology III. Continuation of Pharmacology 612. SP (3-0-3) Klawans.

PHR 622

Experimental Models in Pharmacology. A laboratory course concerned with the techniques involved in preparing experimental animal and tissue models for research. SP (0-8-4) Boyd, Prancan.

PHR 631

Clinical Pharmacology and Therapeutics. A study of the integration of clinical work with therapeutic aspects of pharmacology including: discussion of the pharmacology, clinical pharmacology, therapeutics, and clinical applications for major drug groups. Prerequisite: Pharmacology 503. (4-0-4) MacLeod.

PHR 691

Pharmacology Seminar. FA WI SP (1-0-1) Nora.

PHR 699

Thesis Research. (v)

PHYSIOLOGY

PHY 451

Physiology I. A comprehensive physiology course which deals with essentially all of the major organ systems except the CNS. Concept formation and problem solving are stressed. Lectures are supplemented by small group discussions and laboratory exercises. Students are expected to discuss assigned study questions in the group discussions. Laboratory exercises are divided between conventional experiments and computer simulations of physiological systems. FA (4-2-5) [60 hours] Rovick.

PHY 452

Physiology II. Continuation of Physiol. 451. Prerequisite: Physiol. 451. WI (5-2-5) [63 hours] Rovick.

PHY 502

Introductory Membrane Biophysics. Study of fundamental processes involved in movement of ions across membranes, excitability in nerve and muscle, equivalent circuit analysis, artificial membrane systems, structure of membranes, and active transport processes. (4-0-4) Schauf.

PHY 503

Physiology of Striated Muscle. Topics include fundamentals of excitation-contraction coupling, mechanics of muscle, equivalent circuit analysis, muscle biochemistry, and developmental aspects of nerve and muscle. (4-0-4) Donaldson.

PHY 504

Neurophysiology. This course presents a conceptual

Courses

approach to the understanding of CNS functions. Discussion includes normal function and selected areas of pathology and current research. A one-hour student presentation is required. SP (2-0-2) Schauf.

PHY 513

Cardiovascular Physiol. Students will read and discuss the original papers that form the foundation for our current understanding of heart function and control, peripheral vascular control, and transcapillary exchange. The works will be evaluated in terms of their significance at the time and their present relevance. (4-0-4) Rovick.

PHY 514

Functional Neurophysiology. An examination of physiology of neurons and glia, synaptic processes, sensory receptor physiology, spinal cord, cerebellum and motor control, peripheral mechanisms in sensory systems, and higher functions of the nervous system. Relevant neuroanatomical concepts will be included. SP (4-2-4) Staff.

PHY 523

Circuit Theory and Practical Design. A tutorial laboratory course designed to acquaint the student with the principles of design and construction of various electronic equipment commonly encountered in modern physiology. (3-2-4) Guiffre.

PHY 524

Linear Differential Equations and Transform Methods. Study of first and higher order linear equation, linear algebra techniques, finite difference equations, Fourier series and transforms, Laplace transforms, and applications to solution of differential equations. (4-0-4) Mathias.

PHY 525

Linear Systems Analysis. Topics include block diagrams, feedback, frequency domain analysis, noise and its analysis, and partial differential equations and their solution. Prerequisite: Physiol. 524. (4-0-4) Mathias.

PHY 531, 532

Physiological Modeling I, II. This course covers control theory, the human motor system, and feedback interactions in the human motor system. SU FA (4-0-4) (4-0-4) Gottlieb.

PHY 555

Physiology of Cellular Homeostasis. Integrated physiological content related to cellular homeostasis/viability in humans. Focus is on those selected aspects of cardiovascular, nervous, hormonal, respiratory, and renal systems that account for regulation of cellular fluid, electrolyte and energy/thermal balances. Prerequisite: undergraduate mammalian anatomy and physiology or permission of course director. FA (5-0-5) Schauf, Donaldson.

PHY 590

Special Topics in Physiol. An advanced course dealing with selected topics in physiology. The particular subjects vary from year to year. (v)

PHY 598

Introduction to Research. A tutorial course designed to familiarize students with the literature and techniques applicable to modern physiological research. FA WI SP SU (v-v-v)

PHY 640

Applied Electrophysiology. An advanced laboratory course introducing students to the basic techniques of modern electrophysiology. Prerequisites: Physiol. 502, 503, 523. (3-6-6) Staff.

PHY 641

Molecular Mechanisms in Control of Ion Permeability. An advanced course dealing with special topics in the molecular control of excitability and laboratory instruction in voltage clamp techniques. Offered Alt. years by arrangement. Prerequisite: Physiol. 502. (4-0-4) Schauf, Cohen.

PHY 651

Advanced Topics in Muscle Physiol. Topics include equivalent circuit of skeletal muscle, problems in excitation-contraction coupling, and molecular events in the generation of mechanical force. Prerequisite: Physiol. 503. (4-0-4) Donaldson, Eisenberg.

PHY 653

Problems in Synaptic Physiol. A detailed review of current experimental and theoretical problems in transmitter release and activation of postsynaptic receptors. Prerequisites: Physiol. 451, 503, 514. (4-0-4) Nelson.

PHY 655

Sensory Neurophysiology. An advanced tutorial dealing with the function of sensory systems and information processing. Prerequisite: Physiol. 514. (4-0-4) Hoepplner.

PHY 656

Neural Correlates of Behavior. An advanced tutorial dealing with the organization of simple invertebrate nervous systems and the relation between electrical properties of its elements and its behavior. Prerequisites: Physiol. 514, 655. Alt. SP (4-0-4) Michael.

PHY 690

Research Topics in Physiol. With a member of the staff, the student participates in a laboratory-based experience in an area of current research. The level of participation depends on the student's background and will include examination of the literature, a review of the topics being investigated, and opportunities to participate in experimental work. In addition to work in the laboratories, independent experimental or bibliographic projects may be undertaken with the approval of a faculty member. A report is prepared describing the work attempted and accomplished. Prerequisite: Physiol. 452. SP SU [8 weeks] Schauf.

PHY 699

Thesis Research. Postcandidacy research by arrangement with staff. FA WI SP SU (v-v-v)

PREVENTIVE MEDICINE

PVM 451

Preventive Medicine. A general survey of three topics: (1) biostatistics provides an introduction to the use of statistical methods; (2) epidemiology provides an introduction to current methods and problems in practice; and, (3) preventive medicine, dealing with socioeconomic factors in health care, preventive practices, and environmental and occupational health. SP [33 hours] Madden.

PVM 541

Biostatistics I. A basic introduction to the use of statistics in the health sciences. Topics covered include: descriptive statistics, probability, sampling, estimation, t- and Z-tests, chi-square tests, one-way analysis of variance, and nonparametric statistics. Students will do some statistical computations on the computer. FA (4-0-4) Norusis, Shott.

PVM 542

Biostatistics II. An extensive introduction to regression, two-way analysis of variance, and analysis of covariance. Regression topics covered include: dummy variable, transformations, stepwise regression, and residual analysis. Most of the analysis will be done using computer programs. Prerequisite: Prev. Med. 541. WI (3-0-3) Norusis, Shott.

PVM 543

Biostatistics III. An introduction to multivariate statistical techniques, including factor analysis, discriminant analysis, multivariate analysis of variance, loglinear analysis, and cluster analysis. Extensive use will be made of computer programs. Prerequisite: Prev. Med. 542. SP (3-0-3) Norusis, Shott.

PVM 599

Independent Study. Advanced topics by arrangement with instructor. (v)

PVM 601

Primary Care. Ambulatory care in a physician's office is the basis for this clerkship. Emphasis is on preventive measures and follow-up care. By individual arrangement, experience is available in a variety of settings, such as group practice, inner city clinics, or rural practice. Experience in foreign countries can also be arranged. Prerequisite: Clinical Concepts and Skills 502. FA WI SP SU [4-12 weeks] Schoenberger.

PVM 603

Occupational Medicine. This experience provides a combination of didactic and practical work in approaching the problems of health maintenance and environmental hazards in diverse industrial settings. Prerequisite: Medicine-Internal 601. FA WI SP SU [8 weeks] Kassriel.

PVM 604

Field Experience in Epidemiology. Emphasis is placed on the collection and analysis of data obtained in epidemiologic studies. The student may select a project and is expected to become familiar with field

epidemiologic techniques and tools, including questionnaire design and interviewing. Primary focus is on studies of cardiovascular disease, with special emphasis on the control of hypertension and prevention of cardiac disease. Prerequisite: Clinical Concepts and Skills 502. FA WI SP SU [12 weeks] Schoenberger.

PVM 605

Research Studies in Health Care Delivery. Under supervision, the student undertakes research on problems in health care delivery. The models available in the Medical Center are utilized primarily, but other systems may be studied by arrangement. Such areas as health evaluation programs, the use of paramedical personnel, medical audit and emergency room care are available. Prerequisite: Clinical Concepts and Skills 502. FA WI SP SU [8 weeks] Schoenberger.

PSYCHIATRY

PSY 501

Introduction to Psychopathology. A study of the range of psychopathology that will be manifested in clinical situations. By reviewing diagnostic criteria and by studying etiological factors underlying various forms of psychopathology that range from disturbances in cellular and neurotransmitter function through psychological and social stresses, students develop a basic understanding of common psychiatric conditions. Prerequisite: Behavioral Science 453. FA (3) [34 hours] Zadylak.

PSY 601

Core Clerkship in Psychiatry. Basic clinical and didactic exposure to the major psychiatric disorders is provided with the focus on their diagnosis and treatment. Emphasis is placed on aspects of psychiatry relevant to the primary practitioner with a holistic approach to patient care. Systems concepts of care are presented in an integrated manner through graded, intensive, clinical experiences. Inpatient, partial-hospitalization, and ambulatory settings are used for assignment of patient responsibility. Prerequisite: Clinical Concepts and Skills 502. FA WI SP SU [6 weeks] Zadylak.

PSY 602

Psychosomatic Medicine. Adults and children hospitalized on medical, surgical, obstetric, or pediatric services are studied with supervised diagnostic evaluation and continuing management. The role of the milieu—home, community, and hospital—is emphasized. Special work is done with dialysis patients, transplant patients, patients with malignancies, and those undergoing intensive care. Prerequisite: Psychiatry 601. FA WI SP SU [6 weeks] S. Cavanaugh.

PSY 603

Child Psychiatry. The important variations in behavior in the young are studied, with emphasis on various therapeutic approaches in the setting of a day hospital

for children. The pediatric floor, private office, outpatient clinic, and the Child Psychiatric Clinic are also used as settings for clinical observations. Prerequisite: Psychiatry 601. FA WI SP SU [4 weeks] Fink.

PSY 604

Adult Psychiatry. The objective is to increase the student's knowledge of various psychiatric disorders and to improve knowledge and skills in drug therapy, individual psychotherapy, family therapy, and group therapy. Emphasis is placed on crisis management and brief therapy in a setting providing continuity of care, including in-home visits, community clinics, hospital clinics, partial-hospitalization, and full-time hospitalization. Prerequisite: Psychiatry 601. FA WI SP SU [4 weeks] Corbett.

PSYCHOLOGY

NOTE: Courses numbered 550 and above require admission to the graduate program in psychology and permission of the program director.

PSC 501

Psychology of Learning. This course examines basic learning processes from an historical perspective and through problems of current interest. Topics include principles of classical and operant conditioning, discrimination and generalization, the nature of reinforcement, aversive control of behavior, biological constraints on learning, and neural substrates of learning and memory. (3)

PSC 505

Statistics I. Same as Prev. Med. 541. (4)

PSC 506

Statistics II. Same as Prev. Med. 542. (3)

PSC 507

Statistics III. Same as Prev. Med. 543. (3)

PSC 508

Methods in Behavioral Research. This course examines theory and research methodology as they influence the formulation of hypotheses and research designs in behavioral, social, and clinical research. Prerequisite: Psychology 507. (3)

PSC 521

Biological Bases of Behavior. An examination of the neural substrates of behavior. Topics include synaptic transmission and patterns of neural activity, sensory and motor processes, sleep and arousal, and emotion and motivation. (3)

PSC 522

Psychophysiology. Evaluation of psychological processes by means of physiological responses. Methodology and empirical data in the psychophysiological analysis of attention, perception, learning, and memory. Critical analysis of nervous system organization and responsiveness to acute stress and to chronic dysfunction. Prerequisites: Psychology 501, 521. (3)

PSC 531

Developmental Psychology I: Infancy through Adolescence. The first of a two-course sequence on the normative processes of behavioral change across the life span. Major theories of cognitive, social, personality, and emotional development from early infancy through adolescence are presented. Methodological issues are studied in the context of current and classical research findings. (3)

PSC 532

Developmental Psychology II: Adulthood and Aging. A continuation of Psychology 531. Survey of current research and theory in development throughout adulthood. Empirical data concerning the influence of biological changes, social factors, cognitive processes, and mental and physical health on adult development are reviewed. Prerequisite: Psychology 531. (3)

PSC 534

Developmental Psychobiology. Brain-behavior relationships from infancy through puberty. Emphasis is placed on animal models and/or neurobehavioral analyses of attention disorders, hyperactivity, retardation, aggression/dominance, autism, etc.. The anatomical, neurophysiological and behavioral components of brain development and brain damage are examined throughout the early developmental period. Prerequisites: Psychology 501, 521. (3)

PSC 536

Psychology of Aging. An advanced analysis of the psychology of aging, with consideration of biological and psychosocial factors affecting developmental changes in late adulthood. Topics include methodological issues in research, cognitive processes, personality, psychopathology, and the influence of health and illness on aging and behavior. Prerequisite: Psychology 532. (3)

PSC 541

Theories in Social Psychology. Theoretical approaches to the study of social interaction. Analysis of individual, group, and collective behavior from both psychological and sociological perspectives. Topics include: general theories and methods, empirical data on attribution and social perception, attitude formation and change, conformity, small groups, and collective behavior/mass movements. (3)

PSC 542

Social Bases of Behavior. Examination of family, small group, and social networks as determinants of behavior and as environments within which behavior occurs. Includes theory and processes of role allocation, dyad and triad formation, coalitions, and conflict. (3)

PSC 543

Topics in Medical Sociology. Review of current topics which are announced each term. May be repeated. (1 to 3)

PSC 545

Health and Illness Behavior. Empirical review of concepts basic to the understanding of health and illness behavior, emphasizing a multidimensional model. Topics include personality, stress, and the development of illness; coping with illness; acute vs. chronic illness; factors influencing patient compliance; theories of pain; developmental stage of conceptions of illness; and biological, social, and psychological risk factors in illness. (3)

PSC 548

Program Evaluation. Theory and practice of program evaluation in health care settings. Topics include the uses of evaluation in health service organizations, methodological issues in program assessment, and problems encountered in communication and implementation of evaluation findings. Prerequisites: Psychology 507, 541. (3)

PSC 551

Theories of Personality. An examination of the major traditions in personality theory and research: psychoanalytic, trait, social learning, and phenomenological. Empirical research relating to personality consistency and behavioral specificity is reviewed. Same as Behavioral Science 524. (3)

PSC 553

Psychopathology. Description of psychopathology, with review of defining signs and symptoms in children and adults. The interplay of social, learning, and physiological factors in the etiology of behavioral disorders is considered. Prerequisites: Psychology 532, 551. (3)

PSC 554

Behavior Disorders in Children. Major behavioral disturbances of childhood and their relationship to psychological theories and research. Prerequisite: Psychology 553. (3)

PSC 557

Human Neuropsychology. Consideration of complex psychological functions as they relate to the human central nervous system. Topics include attention, emotion and motivation, perception, psychomotor behavior, language, memory and problem solving. Empirical data concerning cerebral localization, asymmetry of function, and cerebral plasticity are reviewed. Prerequisite: Psychology 521. (3)

PSC 558

Psychology of Sleep. Major theories of mental activity during sleep, including a critical analysis of the relationship between neurophysiological activity and psychological activity during sleep and the interaction between sleeping and waking. Methodological approaches to dream content analysis and to the study of dream function are considered. Prerequisite: Psychology 521. (3)

PSC 571

Principles of Psychotherapy. An introduction to

verbal psychotherapy. Survey and analysis of techniques in psychoanalytic and neoanalytic, client-centered, and cognitive psychotherapy. Prerequisite: Psychology 551. (3)

PSC 572

Principles of Behavior Change. An overview of theoretical approaches, empirical studies, and practical issues in the field of behavioral assessment and intervention. Behavioral observation, principles of behavioral management, and cognitive restructuring. Prerequisite: Psychology 501. (3)

PSC 575

Assessment of Intelligence. Examination of theoretical and practical issues in the measurement of intelligence. Topics include the nature of intelligence, the construction and use of intelligence tests, administration of standardized tests, analysis and presentation of test data. Lecture and laboratory. (3)

PSC 576

Assessment of Personality. Historical and theoretical issues in projective and objective personality assessment. Methodological issues involving empirical vs. rational test construction, clinical vs. actuarial prediction, response styles, etc., are considered. Lecture and laboratory. (3)

PSC 581

Directed Research. Individual projects (Nonthesis research) under the supervision of a faculty member. Arranged by consultation with the program director. (1 to 6)

PSC 590

Special Topics in Psychology. Advanced topics selected for examination and discussion. Topics vary from term to term. (1 to 3)

PSC 599

Directed Readings. Readings in a topic area of particular interest under the direction of a faculty member. Arranged by consultation with the program director. (1 to 3)

PSC 605

Professional Issues. Topics of professional concern in health psychology: issues in professional identity; APA standards of ethics; client/patient/subject rights; legal issues; and interface with other health disciplines. (3)

PSC 611, 612, 613

Practicum in Assessment and Intervention Skills I, II, III. A three-quarter sequence of supervised experience in assessment and intervention. This practicum involves experience in a variety of psychotherapeutic techniques. Students are supervised in the administration, scoring, and interpretation of intelligence and personality tests, including the Wechsler Intelligence Scale, Stanford-Binet, MMPI, TAT, and Rorschach. (2) (2) (2)

PSC 616, 617

Practicum in General Clinical Psychology I, II. A two-quarter sequence of supervised experience with both

children and adults. The practicum integrates clinical course content with the evaluation and management of behavioral and emotional problems in diverse patient populations. Prerequisite: Psychology 613. (3) (3)

PSC 621

Clinical Health Psychology. An examination of psychological processes as they relate to the diagnosis and treatment of physical disease. Prerequisite: Psychology 553. (3)

PSC 622

Advanced Psychotherapy. Prerequisite: Psychology 571. (3)

PSC 623

Advanced Behavioral Interventions. Prerequisite: Psychology 572. (3)

PSC 625

Advanced Rorschach Interpretation. Theory of the Rorschach projective process and the administration, scoring, and interpretation of test protocols. Issues covered are: norms, reliability, personality description, diagnosis of psychopathology, and use in planning treatment. Prerequisites: Psychology 553, 576. (3)

PSC 629

Practicum in Clinical Health Psychology. Intensive, supervised experience with adult medical populations. Emphasis is given to the evaluation of medically-related problems from a psychological perspective, and the development of integrated, comprehensive treatment plans. May be repeated to a maximum of six credits. Prerequisite: Psychology 617. (3)

PSC 631

Pediatric Psychology. Principles of clinical health psychology as they apply to children and adolescents. Intervention methods appropriate to children in inpatient settings are emphasized. Prerequisite: Psychology 553. (3)

PSC 633

Assessment in Pediatric Psychology. Theoretical and practical issues in the assessment of individuals aged 3-16. Emphasis is given to assessment, recommendations for treatment/intervention, and consultation with parents, medical, and professional staff. Lecture and laboratory. Prerequisites: Psychology 575, 576. (3)

PSC 639

Practicum in Pediatric Psychology. Intensive, supervised experience in a variety of diagnostic and intervention techniques appropriate to pediatric populations. May be repeated to a maximum of six credits. Prerequisite: Psychology 617. (3)

PSC 641

Clinical Neuropsychology. Systematic analysis of behavioral disturbances associated with disease, injury, and/or functional alteration of the central nervous system; behavioral manifestations associated with specific neurological syndromes and diseases. Prerequisite: Psychology 557. (3)

PSC 643

Assessment in Clinical Neuropsychology. Rationale, procedures, and substantive content of neuropsychological consultation. Selection and administration of appropriate assessment procedures, evaluation and integration of data, formulation of treatment and management recommendations, and consultation with physicians and other health professionals are considered. Lecture and laboratory. Prerequisites: Psychology 557, 575, 576. (3)

PSC 649

Practicum in Clinical Neuropsychology. Supervised experience in neuropsychological assessment and consultation. May be repeated to a maximum of six credits. Prerequisite: Psychology 617. (v)

PSC 651

Clinical Sleep Disorders. Diagnosis and treatment of sleep and arousal disorders as recognized by the Association of Sleep Disorders Centers. Major diagnostic categories are reviewed in terms of clinical presentation, etiology, laboratory findings, and potential therapies. Lecture and laboratory. Prerequisite: Psychology 558. (3)

PSC 659

Practicum in Clinical Sleep Disorders. Supervised experience in the sleep disorders service: patient interviews, sleep assessments, laboratory evaluation, and case presentations. May be repeated to a maximum of six credits. Prerequisite: Psychology 558. (3)

PSC 669

Advanced Practicum. Practicum experience in the field of a student's special interest. Arranged by consultation with the program director. (v)

PSC 681

Directed Research. Individual projects (nonthesis research) under the supervision of a faculty member. Arranged by consultation with the program director. (v)

PSC 699

Thesis Research. (3 to 12 credits per quarter)

PSC 700

Internship. (Noncredit)

RADIOLOGY

RAD 601

Diagnostic Radiology. Basic radiologic principles are demonstrated and the role of diagnostic radiology as a clinical setting for patient care and medical and surgical specialty consultations is emphasized. Students prepare one case for the teaching file. Prerequisites: Medicine-Internal 601, Ped. 601, Surgery 601. FA WI SP SU [4 weeks] Adler.

RAD 606

Nuclear Medicine. All facets of the disciplines of nuclear medicine are studied, with particular emphasis

on radionuclide scanning of organ systems for diagnostic and research purposes. Emphasis is on pathophysiological correlation and case study. Literature review and individual topics are encouraged to provide in-depth study in the broad field of nuclear medicine. Prerequisite: Medicine-Internal 601. FA WI SP SU [2-4 weeks] Fordham.

RELIGION AND HEALTH

REL 452

Bioethics in Health Care. This is an interdisciplinary course that considers representative ethical issues in health care; paternalism vs. the enhancement of patients' autonomy as perspectives around which to organize health care; principles of ethical decision making in health care; specific issues, such as abortion, treatment of the dying, allocation of resources, and religious and other societal factors that can lead to ethical dilemmas. (2-0-2)

REL 453

Illness and Faith. An examination of patients' understanding of body, time, shame, community, the self, sacrifice and suffering, religious resources, and the relationship between God and illness in light of their faith. Employs seminar method and some clinical materials. Limited enrollment requiring instructor permission. (2-0-2)

SPEECH AND HEARING SCIENCES

SHS 501

Speech and Hearing Science. Study of basic acoustics forms the foundation for examination of resonance, acoustic phonetics, and an introduction to psychoacoustics. Laboratories primarily consist of experimentation for application of theories and for introduction to experimental procedure and use of instrumentation. (3-1-4)

SHS 505

Audiology I. Students develop skills in basic audiological methods for adults and children, including puretone testing, speech audiometry, masking, and impedance testing. Overview of medical considerations, tuning fork tests, special tests, hearing conservation, and hearing aids. Considerations regarding infants, difficult to test patients, and geriatrics. (3-0-3)

SHS 506

Audiology II. Special behavioral methods designed to provide differential diagnosis of auditory pathology. (3-0-3)

SHS 511, 512, 513, 514, 515

Speech-Language Pathology Practicum I, II, III, IV, V. Supervised clinical experience with patients presenting speech, language, voice, fluency, or swallowing impairments. Students develop evaluative, therapeutic, counseling, and report-writing skills. The relationship of

speech-language pathology to other health care professions is examined. (v-v-v)

SHS 516, 517, 518, 519, 520

Audiology Practicum I, II, III, IV, V. Supervised clinical experience with patients displaying various hearing impairments. Students develop skills in diagnostic evaluation, obtaining case histories, counseling, and treatment techniques for pediatric through geriatric patients. The relationship of audiology to other health care professions is examined. (v-v-v)

SHS 521

Language Acquisition. Examines relationships among structure and use of language including cognition, environmental stimulation, ethnic, and social status factors. The course considers language acquisition from theoretical, neuralorganic, and descriptive perspectives. (3-0-3)

SHS 522

Language Disorders. Language disorders in children. Emphasis is on the nature of language delay or breakdown associated with known or unknown etiologic factors. Consideration of sensorimotor processing disturbance in language-disordered children. Assessment and therapeutic techniques are studied. (3-0-3)

SHS 524

Fluency, Dysfluency, and Stuttering. Developmental fluency factors are examined with emphasis on differentiation of normal dysfluency from deviant patterns. Theories of causation are related to management of stuttering. Evaluation and therapeutic procedures are examined in conjunction with clinical observation. (3-0-3)

SHS 526

Industrial Audiology. Requirements and evaluation techniques for hearing conservation programs in industry and the community. (3-0-3)

SHS 527

Total Communication. Total communication as a philosophy for educating hearing-impaired children is examined. Classroom discussion of assigned readings related to the impact of deafness. Students develop an intermediate level of fluency in sign language and a spirit of advocacy for the hearing impaired. Observation in a classroom for the hearing impaired. (3-0-3)

SHS 531

Amplification for the Hearing Impaired. Examines the historical development of hearing aids, basic circuitry, controls and styles of amplification. Comparative and prescriptive techniques for the selection and preselection of hearing aids are presented. Electroacoustic measurement of performance characteristics and modifications of response are emphasized. Also considered are hearing aid fittings with children, group amplification, and room acoustics. Laboratory participation in troubleshooting hearing aids, earmold impression techniques, and electroacoustic analyses. (3-0-3)

SHS 533

Aural Rehabilitation. Reviews the principles and techniques of aural rehabilitation with hearing impaired adults, children, and geriatrics. Assessment of communicative function and formulation and implementation of a remedial plan is emphasized. The impact of hearing impairment on the whole person and on the family is discussed. The relationship between speech-language problems in the hearing impaired and speech perception is examined. Lecture and practicum in Aural Rehabilitation Clinic. (4-0-4)

SHS 540

Anatomy and Physiol. of the Vocal Mechanism. The structures and normal functioning of the respiratory, phonatory, and articulatory mechanisms will be studied. Dissection/prosection labs will be included in this study along with discussion sections and lectures on clinical correlation. (3-1-4)

SHS 541

Anatomy, Physiol., and Pathology of the Auditory System. Study of the anatomy and physiology of the peripheral and central auditory systems. Pathologies affecting the auditory system and associated audiological findings are examined. Lecture and tutorial labs with physicians complement classroom topics. (4-0-4)

SHS 542

Electronystagmography. Anatomy and physiology of the vestibular and ocular motor systems and disorders of patients presenting vertiginous symptoms, with emphasis on technique and interpretation of ENG. (3-1-4)

SHS 543

Electrophysiologic Assessment of the Auditory System. Reviews the principles of electrophysiologic testing. Analysis of electrodermal audiometry, heart rate audiometry, electrocochleography, brainstem evoked potentials, and cortical evoked potentials. (3-1-4)

SHS 544

Pediatric Audiology. This course examines the major etiologies underlying hearing impairments encountered in the pediatric population. Identification programs for neonates and children are discussed. Primary emphasis is placed on the four essential steps in a pediatric audiological evaluation, including differential case history, behavioral observations, audiological test procedures, and parent management and counseling. (3-0-3)

SHS 551

Diagnostic Methods in Speech-Language Pathology. Examination of evaluative procedures and tests used with children and adults. History gathering and counseling techniques are studied. The student is provided experience in taking histories, test administration and interpretation and counseling. Medical and behavioral evaluative models are critically examined. (4-0-4)

SHS 553

Instrumentation in Hearing and Speech Sciences.

Basic electrical circuits and their applications in hearing and speech sciences are discussed. The advantages and limitations of currently used electroacoustic standards and calibration procedures are examined. Proficiency in utilization and calibration of basic instrumentation in hearing science and audiology is facilitated through laboratory experience. (3-1-4)

SHS 561

Articulation Disorders. Phonological classification schemas are described. Phonological rule analysis is used to study normal phonological development and disordered phonological systems. Laboratories provide experience with narrow phonetic transcription. (3-1-4)

SHS 562

Communicative DisordersAssoc. d with Craniofacial Anomalies. Study of normal and deviant craniofacial syndromes. Surgical, orthodontic, and prosthodontic intervention and the role of the rehabilitation team are discussed. Acoustic phonetic and phonological patterns are presented. Head and neck surgery and team rehabilitation are introduced. (3-0-3)

SHS 563

Voice Disorders. Symptomology, etiology, diagnosis and treatment of voice disorders are presented. Vocal characteristics, assessment, and management of various vocal pathologies are emphasized. A segment of the course concerns management of speech and swallowing in head and/or neck cancer patients. Lecture, demonstration, and selective observation with otolaryngologists complement classroom topics. (3-0-3)

SHS 564

Aphasia and Other Symbolic Disorders. Adult onset neurogenic language disorders are examined. Pathophysiology, symptomatology, assessment, diagnosis and treatment, and the role of counseling are emphasized in conjunction with examination of the past and current controversies in clinical aphasiology. This study of the growth and nature of clinical aphasiology as a discipline is approached through gaining familiarity with the literature in the field. (3-0-3)

SHS 565

Motor Speech Disorders. Dysarthria associated with central and peripheral nervous system dysfunction is examined from neurophysiological, theoretical, and clinical perspectives. Assessment and treatment procedures are emphasized. A segment of the course concerns management of communicative disorders in cerebral palsied individuals. Lectures and selective observation with neurologists, neurosurgeons, and neuropsychologists complement speech topics. (3-0-3)

SHS 566

Speech-Language Problems in the Developmentally Disabled. Assessment and management of communicative disorders associated with neurologic impairments in children. Focus on cerebral palsy, mental retardation, and other developmental disabilities in children. (3-0-3)

SHS 572

Psychoacoustics. Advanced psychoacoustics that

examines the psychological properties of auditory stimuli beyond introductory content presented in Speech and Hearing Sciences 501. This course evaluates physical properties of acoustic stimuli (signal analysis), the advantages and limitations of currently used methods for study of the relationship between psychological and physical aspects of auditory stimuli, and basic fact and theory relating to major topics in psychoacoustics. Laboratory experiences complement classroom topics. (3-1-4)

SHS 575

Issues in Counseling. Medical, psychologic, and sociologic issues in counseling patients and/or family members of patients with communicative disorders are examined. Practical counseling experience as well as the study of counseling models are provided. (3-0-3)

SHS 590

External Practicum in Speech-Language Pathology. Supervised clinical experience at Rush network hospitals or at cooperating institutions. (v-v-v)

SHS 591

Advanced Clinical Training. Advanced training in speech-language pathology or audiology. (v-v-v)

SHS 592

Seminar in Audiology. This course focuses on current scientific and clinical issues in hearing science and audiology. The acquisition of critical evaluation skills is facilitated through oral presentation, group discussion, and development of a major research paper. (3-0-3)

SHS 593

Seminar in Speech and Language Pathology. Focuses on significant issues in speech-language science or speech-language pathology. Course work emphasizes examination of these issues through experiences in critical reading of the literature and in scientific writing. These experiences culminate in the production of a major paper and of oral presentations. (3-0-3)

SHS 595

External Practicum in Audiology. Supervised clinical experience at Rush Network hospitals or at cooperating institutions. (v-v-v)

SHS 598

Thesis. Under the guidance and direction of a faculty member and committee, the student originates, proposes, and executes an experiment. These experiments answer significant clinical or basic research questions and reflect a high degree of scholarship in speech and/or hearing science. (v-0-3)

SHS 599

Independent Study. A creative project designed by the student and supervised by faculty. (v-v-v)

SURGERY

SUR 601

Core Clerkship in Surgery. Principles of preoperative and postoperative care, diagnosis of surgical disease, indications for surgery, and physiological principles of surgery are stressed through the case study method. The clerkship teaches surgical pathophysiology, helps students recognize surgical emergencies and outline their therapy, improves diagnostic ability and encourages use of the library, and increased poise in presenting cases. In addition to six weeks of general surgery, the students choose two three-week rotations from available surgical electives to complete the clerkship. Prerequisite: Clinical Concepts and Skills 502. FA WI SP SU [12 weeks] Doolas.

SUR 602

Surgical Techniques. The objective is to acquaint the student with scrubbing technique, operating room etiquette, gowning, draping, and instrument handling; it provides an introduction to techniques in the various fields of surgery. The course is conducted in the large animal laboratory from 1-5 p.m. on Monday and Wednesday. Prerequisite: Surgery 601. FA WI SP SU [5 or 6 weeks] Monson, Haklin.

SUR 604

Advanced Surgery Clerkship. The student assumes many of the duties and responsibilities of a resident physician. This includes responsibility for preoperative and postoperative care, participation in surgery, and rotating on-call service. The work is primarily with hospitalized patients, with opportunity for ambulatory and elective surgery. Independent library investigative projects are assigned. Prerequisite: Surgery 601. FA WI SP SU [4-8 weeks] Doolas.

SUR 605

Anesthesiology. Areas covered are: cardiopulmonary resuscitation (CPR); airway management; respiratory inadequacy and artificial ventilation with mask and bag; circulatory inadequacy and support of the failing circulation; topical and infiltrative anesthesia; the actions and interactions of depressant and stimulant drugs commonly encountered or used by anesthesiologists. Students participate in preoperative evaluation and preparation of surgical and obstetric patients. Prerequisite: Surgery 601. FA WI SP SU [4 weeks] Badrinath.

SUR 606

Clinical Transplantation. The clinical aspects of transplantation, including donor and recipient surgery and preoperative and postoperative care are studied. The student participates in organ preservation as well. Seminars on the fundamental and clinical aspects of transplant immunology are held. Prerequisite: Surgery 601. FA WI SP SU [4-8 weeks] Merkel.

SUR 607

Transplantation Research. The primary emphasis is laboratory research in the animal perfusion and immunologic laboratories. The student is responsible for

supervised research in organ transplantation, transplant immunology, and other clinically-oriented problems. Prerequisite: Surgery 601. FA WI SP SU [8 weeks] Merkel.

SUR 611

Cardiovascular Surgery. This course emphasizes the clinical and laboratory diagnosis of cardiac (both congenital and acquired) and vascular disorders considered for surgical management. Indications for surgery, preoperative evaluation and postoperative care are discussed at patient rounds, in conferences, and on an individualized basis. Prerequisite: Surgery 601. FA WI SP SU [4 weeks] Najafi.

SUR 616

Plastic and Reconstructive Surgery. The basic surgical principles of wound care, wound treatment, and general techniques associated with the treatment of acute trauma, burns, lacerations, and blunt trauma are studied. Instruction in the care of acute injury of the hand and basic instruction in the diagnosis and treatment of facial and bone fractures will be included. Experience in suturing animal wounds and actual surgical technique in the emergency room may be included. Prerequisite: Surgery 601. FA WI SP SU [4-8 weeks] Curtin.

SUR 626

Principles of Urology. This clerkship provides further experience in the diagnosis and management of urological problems as a supplement to the basic clerkship in surgery. Prerequisite: Surgery 601. FA WI SP SU [4 weeks] McKiel.

SUR 627

Genitourinary Neoplasia. The basic concepts of neoplasia, using the genitourinary neoplasms as models are presented. These neoplasms have been selected because, collectively, they span the entire spectrum of malignancy. The student actively participates in the management of both hospitalized and ambulatory patients. Multidisciplinary seminars and individual projects are available. Departmental approval required. Prerequisite: Surgery 601. FA WI SP SU [4 weeks] Flanagan.

SUR 651

Clinical Orthopedics. The primary emphasis is on examination, diagnosis, pathology, and treatment of conditions affecting the musculoskeletal system. The student participates in clinical work in physicians' offices and hospital facilities such as the cast room and the operating room. Prerequisite: Surgery 601. FA WI SP SU [3 or 4 weeks] Gitelis.

SUR 652

Orthopedic Research. Research and bioengineering as applied to the musculoskeletal system are studied with particular emphasis on the pathomechanics of human gait, mechanics of lifting, experimental use of implants in animals and their effects on biologic systems. Prerequisite: Surgery 601. FA WI SP SU [8 weeks] Andriacchi.

SUR 654

Hand Surgery. Hand surgery combines techniques of both plastic and orthopedic surgery. Operative technique is broadened by exposure to preoperative selection and postoperative management of patients. A basic reading list will provide the fundamentals, and microsurgical practice in the laboratory will prepare for reconstruction and replantation. Prerequisite: Surgery 601. FA WI SP SU [4 weeks] Schenck.

SUR 656

Clinical Neurosurgery. This clinical clerkship expands upon and demonstrates the practical application of neurological sciences. The emphasis is on diagnosis and pathophysiological correlation of diseases of the nervous system. Practical application of neurosurgical management and diagnosis as well as the treatment of neurosurgical emergencies is studied in detail. Prerequisite: Surgery 601. FA WI SP SU [4 weeks] Whisler.

SUR 657

Principles of Ophthalmic Examination. Under the supervision of the staff, practical instruction is provided in the essentials of ophthalmic examination. Special emphasis is on the proper use of instruments. Prerequisite: Surgery 601. FA WI SP SU [2 weeks] Deutsch.

SUR 658

Research in Ophthalmology. Research projects are available for students with a special interest in ophthalmology. Individual projects may be arranged with the department in cooperation with appropriate basic science or clinical departments. Prerequisites: Medicine-Internal 601, Surgery 601. FA WI SP SU [8 weeks] F. Hughes.

SUR 659

Otolaryngology. Clinical experience is provided in the diagnosis and management of patients with diseases of the ear, nose, throat, head, and neck. Office practice and the care of hospitalized patients provide the basis for clinical instruction, with emphasis on case study and proper use of instruments. Departmental pathology, radiology, and otology conferences and journal club are included. Prerequisite: Surgery 601. FA WI SP SU [4 weeks] Caldarelli.

SUR 661

Surgical Oncology. Concentrated experience in the surgical diagnosis and management of patients with tumors is provided. Correlation of surgical problems with anatomic and pathological physiology is stressed, including examination of gross and microscopic tissue. Attendance at the tumor clinic, tumor conference, and head and neck tumor conference is required. Prerequisite: Surgery 601. FA WI SP SU [6 to 12 weeks] Economou.

SUR 670

Speech and Hearing. An introduction to speech, language, and hearing problems. Observation and interaction with patients demonstrating aphasia, dysarthria, stuttering, cleft palate, and developmental speech

abnormalities are provided. Experience in interpretation of basic hearing assessment, as well as special auditory tests to differentiate conductive and sensory neural hearing loss; cochlear and retrocochlear pathology, and nonorganic and organic hearing loss is also provided. Prerequisite: third year medical student status. FA WI SP SU [2 to 4 weeks] Jensen.

SUR 671

Thoracic Surgery. The diagnosis, and operative and

postoperative care of patients with pulmonary and esophageal disorders are studied in both hospitalized and ambulatory patients. In addition, students assist in patient care, and topics are assigned for discussion. Prerequisite: Surgery 601. FA WI SP SU [4 weeks] Kittle.

FACULTY

Department List	147
Alphabetical List	169

Faculty Departmental List

ANATOMY

Clayton, Sheldon P.
Assistant Professor

*Colgan, James A.
Assistant Professor

*Dinsmore, Charles E.
Associate Professor

*Durica, Thomas E.
Assistant Professor

Dybas, Linda
Assistant Professor

*Galante, Jorge O.
Professor

Gardiner, Richard
Assistant Professor

Hovde, Christian
Assistant Professor

*Hughes, W. Franklin
Associate Professor

*Jacob, Susan K.
Assistant Professor

*Kerns, James M.
Assistant Professor

Khedroo, Lawrence G.
Assistant Professor

*Khodadad, Jena
Assistant Professor

Kuszak, Jerome R.
Assistant Professor

*Maibenco, Helen
Professor

*Schmidt, Anthony
Professor

Chairperson

Schwartz, David
Assistant Professor

*Seale, Raymond
Professor

*Williams, James M.
Assistant Professor

ANESTHESIOLOGY

Andrews, Thomas W.
Instructor

Badrinath, Shyamala K.
Assistant Professor

Berger, Steven M.
Assistant

Bondoc, Felipe
Associate

Braverman, Burton
Assistant Professor

Carroll, Gilbert
Assistant Professor

Co, Licencia L.
Associate

Cocadiz, Norval
Instructor

Devlin, Michael F.
Instructor

Djordjevich, Ljubomir
Assistant Professor

Doncheff, Iwan
Assistant Professor

Duque, Adoracion
Instructor

El Ganzouri, Abdel R.
Assistant Professor

El-Baz, Nabil M. I.
Assistant Professor

Figel, Mary Ann

Assistant

Ford, Erica W.

Assistant Professor

Froehlich, James

Assistant

Gottschalk, William

Professor

Associate Chairperson

Hahn, Robert

Visiting Assistant

Professor

Havdala, Henri S.

Professor

Heckel, V. Eileen

Associate Professor

Heller, Floyd N.

Associate Professor

Hutchinson, Craig H.

Assistant

Ibrahim, Tahcin

Instructor

Ivankovich, Anthony

Professor

Chairperson

Jagmin, Jeffrey J.

Assistant

Jordan, Patrick

Assistant

Juaneza, Teresita

Instructor

Keane, Donal M.

Assistant Professor

Keh-Wong, Elisa S.

Assistant Professor

Lai, Joseph C.

Assistant Professor

Lai, Tai Min

Instructor

Larson, John M.

Assistant Professor

Lastres, Enrique J.

Assistant Professor

Liceaga, Alvaro O.

Assistant

Lin, Jui Kuang

Instructor

Lin, Yuan-Hwai

Instructor

Logas, William G.

Instructor

Lubenow, Timothy R.

Assistant

Mady, Vekatgiri

Instructor

McCarthy, Robert J.

Assistant Professor

Metha, Mansukh H.

Instructor

Morch, E. Trier

Emeritus Professor

Movagh, Azar

Instructor

Murphy, Peter

Associate Professor

Patel, Kanchan P.

Assistant Professor

Prasad, Neerukonda

Instructor

Rhim, Ihn G.

Instructor

Rose, Raymond F.

Emeritus Professor

Sadove, Max S.

Emeritus Professor

Sanders, Marc R.

Assistant

Santander, Marc

Assistant Professor

Schoen, Robert E.

Assistant

Seshadri, Kandiyur

Instructor

Shapiro, Jeffrey D.

Assistant

Shima, Arthur T.

Visiting Professor

Silins, Astrida I.

Assistant Professor

Sinclair, Donald M.

Assistant Professor

Spiess, Bruce D.

Instructor

Springer, George

Assistant

Stetson, John B.

Professor

Styka, Phillip E.

Assistant

Tennant, Maurice M.

Assistant Professor

Thomason, Jr., Richard D.

Assistant Professor

Tio, Diego U.

Associate

Torres, Albert

Assistant

Tsai, Houn

Instructor

Tuman, Kenneth J.

Instructor

Vukalcic, Lisa J.

Assistant

Wells, Gregory E.

Assistant

Wenzel, David R.

Assistant

Wong, Alfonso

Assistant Professor

Zelisko, John A.

Assistant

BIOCHEMISTRY

Anderson, Kenning M.

Associate Professor

Arsenis, Charalampos

Visiting Professor

Aydelotte, Margaret

Assistant Professor

Bezkorovainy, Anatoly

Professor

Byers, Sharon

Instructor

Cohen, Maynard

Professor

Cole, Edmond

Professor

Demidow, Ludmilla

Instructor

*Dubin, Alvin

Professor

*Götterer, Gerald S.

Associate Professor

Harris, Leland

Professor

*Harrison, William

Professor

Hawkins, Judy

Instructor

*Hayashi, James A.

Professor

Hoskin, Francis C. G.

Visiting Professor

Kachmar, John

Associate Professor

Kathan, Ralph H.

Associate Professor

*Kimura, James H.

Associate Professor

*Kornel, Ludwig

Professor

*Kuettnar, Klaus E.

Professor

Chairperson

Kumar, Sudhir

Associate Professor

*Lange, Yvonne

Professor

Lobstein, Otto E.

Associate Professor

Matijevitch, Branislav

Instructor

*Mattenheimer, Hermann

Professor

Associate Chairperson

*Morley, Colin

Associate Professor

*Pauli, Bendicht U.

Professor

*Rafelson, Jr., Max E.

Professor

*Sandell, Linda

Assistant Professor

*Schwartz, David

Assistant Professor

*Sky-Peck, Howard H.

Professor

*Thonar, Eugene

Assistant Professor

*Weinstock, Albert

Assistant Professor

*Whisler, Kenneth E.

Assistant Professor

Whisler, Walter

Professor

*Zaneveld, Lourens

Professor

CARDIOVASCULAR

THORACIC

SURGERY

Andersen, James H.

Member

Bojar, Robert

Instructor

Choudhry, Anwar S.

Instructor

Da Valle, Michael J.

Instructor

Faculty Departmental List

Davis, Zev Instructor	Bassrawi, Margaret Instructor	Fredenberg, Mary F. Assistant	Chung-Bin, Anthony Associate Professor
De Laria, Giacomo Assistant Professor	Buccholz, Valre Associate	Gehlmann, Louisa M. Assistant Professor	Clark, John W. Professor
De Takats, Geza Emeritus Professor	Buchanan, Bernice Associate Professor	Haerberlin, Jr., John B. Emeritus Professor	Close, Timothy P. Assistant
Deleon, Serafin Lecturer	Carfang, Carol J. Associate	Hanson, Wayne R. Assistant Professor	Cook, David Assistant Professor
Dye, Jr., William S. Professor	Christiansen, Kathy Assistant Professor	Kaplan, Sidney Associate Professor	Czervionke, Leo F. Instructor
Faber, L. Penfield Professor	Associate Chairperson	Keane, John T. Assistant Professor	Dickerson, Margaret M. Instructor
Fedorchik, Joseph J. Instructor	Crane, Marianna L. Associate	Levitt, Leonard Assistant Professor	Dieschbourg, Janice Assistant
Garibaldi, Abel Instructor	Cukr, Penelope Assistant Professor	Malkinson, Frederick Professor	Dommers, Jr., Martin P. Instructor
Goldin, Marshall D. Assistant Professor	Dishno, Judy Assistant Professor	Chairperson	Draths, Kathleen G. Assistant
Guillory, Joel Instructor	Fondiller, Shirley H. Associate Professor	Mowbray, David N. Assistant	Dudiak, Christine M. Assistant
Hoeksema, Tammo Instructor	Glantz, Gale Instructor	O'Donoghue, Marianne Associate Professor	Duman, Bonnie J. Assistant
Hunter, James A. Professor	Grace, Diane Instructor	Paller, Amy S. Assistant Professor	Epstein, Avrum J. Instructor
Ibawi, Michel N. Lecturer	Huna-Calandra, Marcia Instructor	Pearson, Roger W. Professor	Fordham, Ernest W. Professor
Javid, Hushang Professor	Johnsen, Ruth E. Assistant Professor	Rostenberg, Jr., Adolph Visiting Professor	Vice Chairperson
Jensik, Robert J. Professor	Johnson, Mary T. Associate	Shaw, Steven M. Assistant	Foust, Robert J. Assistant
Julian, Ormand C. Emeritus Professor	Kaiser, June Instructor	Smith, Edwin M. Emeritus Professor	Gardiner, Richard Professor
Karlson, Karl J. Instructor	Lower, Helen M. Associate Professor	Spinka, Harold M. Assistant Professor	Gardner, H. Rex Assistant Professor
King, Jerry N. Assistant Professor	Muchow, Elizabeth Associate	Strohl, Lee H. Assistant Professor	Gavin, Patricia M. Assistant
Kittle, C. Frederick Professor	Ninan, Mary Assistant Professor	Szymanski, Frederick J. Professor	Geremia, Glen K. Assistant
Langston, Hiram T. Visiting Professor	Padonu, Georgia Associate Professor	DIAGNOSTIC RADIOLOGY & NUCLEAR MEDICINE	Gerolimatos, Spiridon Assistant Professor
Lewis, Harry M. Instructor	Chairperson	Adler, Yolanda T. Associate Professor	Goodman, Alan Assistant Professor
Loiterman, David A. Instructor	Pender, Nola Associate	Alcorn, Franklin Professor	Greenfield, George B. Professor
Mathisen, Douglas J. Assistant Professor	Phillips, Kathleen Assistant Professor	Ali, Amjad Associate Professor	Hecht, Alan H. Assistant Professor
Milloy, Frank J. Associate Professor	Sapala, Shirley Assistant Professor	Anees, Ahmed M. Instructor	Hill, B. Jay Visiting Professor
Monson, David O. Assistant Professor	Shannon, Iris Associate Professor	Auer, Roy Instructor	Horowitz, Sandra W. Associate
Najafi, Hassan Professor	Solid, Rhonda Assistant Professor	Bayard, Walter J. Instructor	Huckman, Michael S. Professor
Chairperson	Sovik-Haviley, Corinne Associate	Birnholz, Jason C. Professor	Jagannathan, Subbia G. Instructor
Oldfield, R. Charles Assistant Professor	Stypulowski, Ellen Instructor	Bogdonoff, Maurice L. Professor	Kaplan, Harvey C. Assistant
Roberts, Jack C. Assistant Professor	Templin, Ruth B. Associate	Breit, Robert B. Assistant	Katz, Jack M. Assistant Professor
Serry, Cyrus Assistant Professor	DERMATOLOGY	Buenger, Richard E. Professor	Kossol, Janet M. Instructor
Spinazzola, Angelo J. Assistant Professor	Bielinski, Stefan Associate Professor	Chairperson	Kubicka, Robert Assistant Professor
Tsai, Eugene Associate Professor	Blankenship, Marshall Associate Professor	Capek, Michael Assistant	Matalon, Terence Assistant Professor
Warren, William H. Instructor	Brennan, Terry E. Assistant	Caron, Kathleen H. Assistant	Matthew, Guy R. Associate Professor
Weinberg, Jr., Milton Professor	Budz, Jerome Assistant Professor	Cha, Eung Man Associate Professor	Mulopulos, George Assistant
COMMUNITY HEALTH NURSING	Earles, Rene M. Instructor	Charters, John R. Assistant Professor	Murakami, Marcia E. Instructor
Barhyte, Diana Y. Associate Professor	Ertle, James O. Assistant Professor		Ojea, Fernando A. Instructor

Pakalniskis, Aloyzas

Assistant
Patel, Suresh K.
 Associate Professor
Petasnick, Jerry P.

Professor
Pozniak, Myron
 Instructor

Rabin, David N.
 Assistant

Ramsey, Ruth G.
 Associate Professor
Rayudu, Garimella V.

Associate Professor
Russell, Eric
 Assistant Professor

Silver, Bruce A.
 Assistant Professor
Smith, Claire

Assistant Professor
Stack, Caryn
 Assistant

Strasser, Stephan
 Assistant

Turner, David A.
 Professor

Walczak, Cheryl A.
 Assistant

Warner, Jennifer
 Assistant

Zacharias, Charles
 Assistant

FAMILY PRACTICE

Ahmed, Khalid F.
 Associate

Albovias, Susan P.
 Instructor

Anderson, Philip
 Professor

Atlas, Gerald D.
 Assistant Professor

Augustson, Michael K.
 Instructor

Baba, Walten A.
 Associate Professor

Ballin, Michael
 Assistant Professor

Baraglia, James P.
 Assistant Professor

Barber, Frederick A.
 Assistant Professor

Bardwell, Jacqueline
 Assistant

Bender, Harry Z.
 Member

Bennett, Donald R.
 Associate Professor

Bhoopal, Vasireddy
 Instructor

Bick, Richard H.
 Assistant Professor

Blair, Kenneth M.
 Assistant Professor

Bowser, Robert L.
 Instructor

Boyer, Robert J.
 Instructor

Brant, Julius

Professor

Bray, Emily

Instructor

Brown, Robert W.

Assistant
Brueschke, Erich
 Professor

Chairperson
Burdick, Allison L.
 Professor

Camacho, Bienvenido
 Associate

Cavens, Robert L.
 Instructor

Ceaser, Leonard S.
 Associate Professor

Chawapun, Ponpimol
 Assistant Professor

Crunk, Dennis L.
 Assistant

Cullinan, John
 Instructor

Currie, Robert E.
 Assistant Professor

Dabek, Theresa M.
 Instructor

Daum, Thomas D.
 Instructor

Davison, Daniel T.
 Instructor

Dekker, Anthony
 Lecturer

DeKonink, Bernard L.
 Assistant

Delacruz, Marco
 Instructor

Delneky, Joyce A.
 Instructor

Dent, Susan V.
 Assistant Professor

Dent, Thomas
 Assistant Professor

Devitt, John J.
 Associate Professor

Dohse, David A.
 Assistant

Eberling, Jan
 Assistant Professor

Eklund, Elizabeth A.
 Assistant

Feldman, Bernard
 Assistant Professor

Feria, Araceli I.
 Instructor

Ferrel, James A.
 Instructor

Fink, James R.
 Professor

Fischer, Tessa
 Instructor

Flacco, Richard M.
 Assistant Professor

Flinger, Denise J.
 Instructor

Foley, Edward C.
 Assistant

Frankovelia, Nicholas
 Assistant Professor

Fried, Peter
 Assistant Professor

Friestad, Wayne S.
 Instructor

Froiland, John L.
 Assistant Professor

Garwacki, John H.

Member
Geiger, Mildred L.
 Assistant Professor

Gigante, Joseph D.
 Instructor

Gilbert, Warren S.
 Instructor

Gingold, Walter
 Assistant Professor

Glassman, Harold S.
 Assistant Professor

Glick, Melvin
 Instructor

Gnap, John J.
 Assistant Professor

Gogan, William T.
 Instructor

Goldberg, Gary
 Instructor

Goodlatte, Joyce
 Instructor

Gray, George
 Assistant Professor

Green, Jerome G.
 Assistant Professor

Grouse, Jan
 Assistant Professor

Grouse, Lawrence D.
 Assistant Professor

Guthrie, George E.
 Assistant

Hamel, Loren B.
 Assistant

Harding, Pauline N.
 Instructor

Harwood, Robert
 Assistant Professor

Haskins, Nancy K.
 Assistant

Hay, William H.
 Assistant

Heck, Robert S.
 Professor

Helford, Michael
 Assistant

Hemphill, Robert B.
 Associate Professor

Hemwall, Gustav A.
 Associate Professor

Herbick, John M.
 Assistant

Hickerson, Robert G.
 Assistant Professor

Hogstrom, Valentine E.
 Assistant Professor

Homan, Diane M.
 Assistant

Hori, Arthur R.
 Assistant

Hotch, Deborah
 Assistant Professor

Humowiecki, Stephen R.
 Assistant Professor

Hura, Joseph Z.
 Assistant

Ivankovich, Olga
 Assistant Professor

Johnson, Gene E.
 Assistant Professor

Johnson, Larry E.

Assistant
Jones, Tanya Y.
 Instructor

Kanaris, Mark
 Associate Professor

Kazaniwskyj, Andrew
 Instructor

Kazaniwskyj, Lubomyra
 Assistant

Kelly, Derek J.
 Instructor

Knox, Timothy
 Instructor

Kornblatt, Brian J.
 Instructor

Krahn, Wolf-Dieter
 Assistant

Lang, Mary
 Instructor

Largosa, Anastacia
 Instructor

Laws, Michael H.
 Assistant

Lemberger, Terrence
 Instructor

Levine, Charlotte C.
 Assistant Professor

Lopez, Carolyn C.
 Assistant Professor

Lopez, Marco A.
 Assistant Professor

Lopez, Mario O.
 Instructor

MacEntee, Peter F.
 Assistant Professor

Madden, Thomas
 Assistant Professor

Mahler, Sandra J.
 Assistant Professor

Marchmont-Robinson, H.
 Member

Martinez, Robert
 Instructor

Mason, Edward L.
 Instructor

Matula, Joseph J.
 Assistant

McCoy, James J.
 Assistant Professor

McHugh, Rosemary E.
 Instructor

Merali, Ghanshyam V.
 Instructor

Michaels, Henry M.
 Associate Professor

Miller, Edwin
 Assistant Professor

Milton, Bernard G.
 Instructor

Mokry, Cyrus
 Assistant Professor

Moldando, Alexander
 Assistant

Mueller, Kathryn L.
 Instructor

Munir, Seema
 Instructor

Munoz, Jose N.
 Instructor

Faculty Departmental List

Nelson, Delbert H. Assistant Professor	Shobris, Martin Associate Professor	Baffles, Thomas G. Professor	Douglas, Gilbert W. Assistant Professor
Nelson, William J. Assistant Professor	Skul, Bozica Instructor	Baker, James W. Assistant	Duret, Edouad Instructor
Neufeld, Timothy E. Assistant Professor	Stocker, Michael Assistant Professor	Banich, Francis E. Assistant Professor	Dwan, Francis Associate
Newman, Julius S. Assistant Professor	Stuck, Gary D. Assistant	Barr, Sanford L. Instructor	Economou, Steven G. Professor
Neybert, Hilary F. Instructor	Suchy, Vladimir Associate	Bassuk, Angel B. Assistant Professor	Elmer, Russel E. Associate Professor
Noureldin, Abdel H. Instructor	Taylor, Douglas W. Assistant Professor	Becker, Eliot Instructor	Ertl, John W. Member
Parisi, Bruce A. Assistant	Thompson, Walter C. Instructor	Bleck, Phyllis C. Instructor	Federer, H. Clark Assistant
Partida, Jesus M. Assistant	Tkach, John I. Member	Bloom, Allen D. Assistant	Feimer, Peter P. Assistant Professor
Paul, Harry A. Associate	Turek, Louis H. Assistant Professor	Bonick Jr., James F. Instructor	Fell, Egbert Emeritus Professor
Pearson-McCreary, B. Instructor	Van Reken, Everett Instructor	Bosack, Robert C. Instructor	Fine, Richard E. Assistant
Pena, Alvaro E. Assistant	Vulgaris, William Instructor	Bryant, R. Samuel Assistant	Fingerhut, Morton H. Assistant Professor
Peterson, Wayne W. Assistant	Wade, Margaret E. Assistant	Caldwell, Richard G. Assistant Professor	Fishman, Don R. Assistant
Plunkett, Michael J. Assistant Professor	Wagner, Robert H. Assistant Professor	Cannon, Joseph P. Professor	Flanigan, Robert M. Instructor
Portes, Steven A. Instructor	Wall, James M. Member	Cercone, Jaime Instructor	Fredland, Allan J. Instructor
Poulos, George T. Assistant Professor	Watkins, Roy C. Instructor	Chaitkin, Paul Instructor	Frymark, William B. Assistant Professor
Preston, William Instructor	Watts, Jr., Risher Instructor	Chen, Kuo Ching Assistant Professor	Gartner, Richard F. Assistant
Ramunis, Jerry Member	Weisbart, Edmond Instructor	Chertack, Craig S. Assistant	Gavin, Frank Associate
Range, Charles L. Professor	Weisberger, Lise Instructor	Christensen, Eldis M. Assistant Professor	Gilchrist, R. Kennedy Emeritus Professor
Rauholt, Dorthe Instructor	Welsh, Brady Assistant	Claman, Maurice A. Assistant Professor	Glickman, Irving A. Instructor
Ricker, Alfred P. Professor	Wigder, Herbert N. Assistant Professor	Cole, Warren H. Emeritus Professor	Gold, Henry O. Associate
Rivers, David W. Instructor	Wilson, Robert W. Instructor	Cook, John Q. Instructor	Guerra, Rafael P. Instructor
Robinson, Warren Assistant	Wood, Joseph P. Instructor	Crosby, Daniel L. Assistant	Gwynn, Vernon L. Assistant Professor
Rollow, William C. Instructor	Young, Deatra Instructor	Cullen, Marc Instructor	Haklin, Michael F. Lecturer
Rosenberg, Lisa K. Assistant	Zitek, Russell Associate Professor	Dalessandro, Alan Instructor	Haley, Ronald G. Assistant Professor
Ruff, William J. Associate	Zitter, Robert E. Assistant Professor	Davis, Jr., Carl B. Emeritus Associate	Haralampopoulos, Harry Associate
Ryan, Norman Instructor	GENERAL SURGERY	Professor	Hayes, Mary J. Instructor
Ryd, Wesley H. Associate	Ackley, William O. Associate	De Leeuw, Henry W. Assistant	Herwick, Paul Q. Instructor
Samuel, Molly Assistant	Adams, James R. Associate	dePeyster, Frederick Professor	Hodge, Robert G. Instructor
Samuelson, Dean C. Instructor	Aduss, Howard Professor	Demange, Gilbert R. Associate	Hodoval, Randall J. Instructor
Sauerberg, Steven K. Assistant Professor	Airan, Mohan C. Associate Professor	DePhillips, George R. Assistant	Holmes, William H. Emeritus Associate
Saxon, Leonard T. Professor	Akers, Paul T. Assistant Professor	Deziel, Daniel J. Instructor	Hopkins, William C. Associate Professor
Schlecht, Hans W. Assistant Professor	Alder, Gary F. Assistant Professor	Diffenbaugh, Willis G. Emeritus Associate	Hopkins, William M. Instructor
Schwer, William Assistant Professor	Ansari, Shahid A. Instructor	Dimiceli, Salvatore A. Member	Horberg, David Instructor
Shariff, Nayeeem Instructor	Arain, Mohammed Instructor	Donahue, Edward J. Instructor	Howell, Roderic Assistant Professor
Sherin, Kevin Assistant Professor	Baffles, Chris G. Assistant Professor	Doolas, Alexander Associate Professor	

Howser, John W. Associate Professor
Hughes, Thomas M. Assistant
Hui W.T., Peter Instructor
Hutchinson, Penny J. Assistant
Jaffe, Eugene J. Associate
Jamieson, Robert W. Lecturer
Jensik, Stephen C. Assistant Professor
Johnson, Bruce Instructor
Johnson, Frank R. Emeritus Associate Professor
Johnson, Richard Instructor
Jubert, Andre V. Associate
Kagan, Robert Assistant
Kapusta, George R. Assistant Professor
Kasper, Edward L. Associate
Kaymakcalan, Orhan Instructor
Kelleher, Leon R. Assistant Professor
Kelly, Michael E. Assistant
Khedroo, Lawrence G. Assistant Professor
Kim, Myung Ho Assistant Professor
Klompien, Gerald Assistant Professor
Ko, T.S. Assistant Professor
Kolt, Leonard H. Associate Professor
Kowal, Roland A. Assistant Professor
Kunz, Peter Assistant
Laga, Stephen F. Instructor
Larsen, Erik Associate Professor
Lawrence, Arthur G. Associate Professor
Lawton, Stanley E. Emeritus Professor
Lee, Trusten P. Instructor
Lemons, James A. Professor
Levin, Mark N. Assistant
Macleod, Cathel A. Assistant
Marchuk, Basil Member
Matheson, Michelle Instructor
McCarthy, William G. Assistant Professor

McDonald, Gerald Visiting Assistant
McElean, Jeffrey A. Assistant
McMillan, Foster L. Emeritus Professor
Mendak, Stephen J. Instructor
Merkel, Frederick K. Associate Professor
Mesleh, George F. Assistant Professor
Michalow, Alex E. Assistant
Mihelich, Kenneth Assistant
Millikan, Keith W. Assistant
Moss, Jerry F. Instructor
Nash, Donald D. Instructor
Nasralla, Nahim H. Assistant Professor
Nathan, John E. Visiting Assistant Professor
Nelson, Thomas L. Assistant
Nicholas, Everett E. Associate Professor
Nichols, Mark O. Instructor
O'Dell, Kevin B. Assistant
Olwin, John H. Emeritus Professor
Parenti, Anthony Instructor
Paskill, Joseph W. Assistant
Patejdl, William Assistant Professor
Patel, J.M. Instructor
Paul, Harold A. Associate Professor
Paulissian, Edward B. Assistant Professor
Peters, John R. Assistant
Petty, David T. Member
Pomerantz, Marc A. Assistant Professor
Ponce de Leon, Roland Assistant Professor
Ponglorpisit, Suporn Instructor
Pucci, Rita Assistant Professor
Radhakrishnan, Jayant Associate
Rao, Nagulapalli Instructor
Raymond, Sidney W. Member
Reisberg, David J. Associate

Rizk, Sherif L. Assistant
Roberg, O. Theodore Emeritus Professor
Rodriguez, Juan A. Associate Professor
Romeiser, Jr., Adam Instructor
Roseman, David L. Associate Professor
Rosenthal, Stephen Assistant
Rothchild, John A. Instructor
Roztoczynski, Henryk Instructor
Saclarides, Theodore Assistant
Salomon, Jacob Assistant Professor
Sanborn, Earl B. Assistant Professor
Sandrolini, James A. Assistant Professor
Santos, Antonio L. Instructor
Sathoff, Rodney Assistant
Scheive, Glenn R. Instructor
Schmidtke, Wendell H. Visiting Assistant Professor
Seidman, Leon Assistant Professor
Seif, Ramsey Assistant
Shearon, Kenneth Emeritus Professor
Shorey, William D. Associate Professor
Shrock, Peter Assistant Professor
Slezak, George C. Assistant Professor
Snyder III, Edward J. Assistant
Snyder, Leonard Instructor
Sompalli, P. Naidu Instructor
Southwick, Harry W. Professor
Staren, Edgar Assistant
Stohle, Michael R. Instructor
Straus, Albert K. Assistant Professor
Straus, Francis H. Emeritus Professor
Strehl, Francis W. Assistant Professor
Sudakoff, Gary S. Assistant
Tattersall, Charles W. Assistant
Tedesco, Dominic Assistant
Tennant, Steven R. Associate

Thomas, Charles W. Instructor
Tiesenga, Marvin Assistant Professor
Timmerman, Gary L. Assistant
Tomas, Joaquin Instructor
Vossoughi, Farhad Instructor
Wagner, Robert Hans Assistant
Wiley, Darrell B. Member
Witkowski, Leon J. Emeritus Professor
Witkowski, Robert Instructor
Witt, Thomas R. Assistant Professor
Wolf, Mark R. Instructor
Wool, Norman L. Assistant Professor
Young, J. Norman Assistant Professor
Zlomke, Michael Assistant
Zoeller, Thomas Instructor

GERONTOLOGICAL NURSING

Anderson, Donald Assistant Professor
Dahab, Jean Instructor
Dall, Carol J. Instructor
Ellor, Janet Instructor
Gokbudak, Helen Instructor
Hatton, Jean Associate
Hewitt, Susan Mary Instructor
Hollinger, Linda Instructor
Jackson, Mary Assistant Professor
Kenton, Lorry Assistant Professor
Korey, Rhonda Instructor
Kraft, Margaret Associate
Lamb, Karen Instructor
LeSage, Joan Associate Professor
Meyer, Nancy Instructor
Miles, Alma Assistant Professor
Miller, Joanne Assistant Professor
Moore, Janet S. Professor

Faculty Departmental List

Ortigura, Anna
 Instructor
Perry, Kathleen
 Associate
Potempa, Kathleen
 Assistant Professor
 Associate Chairperson
Rane-Szostak, Donna
 Associate
Reid, Connie
 Instructor
Roberts, Kathryn
 Assistant Professor
Rubin-Terrado, Marilyn
 Instructor
Schneider, Catherine
 Instructor
Sivertsen, Lynn
 Assistant Professor
Struble, Laura
 Instructor
Tordecilla, Lydia
 Instructor
Wilkinson, Connie
 Instructor
Yosko, Kathleen
 Associate

HEALTH SYSTEMS MANAGEMENT

Barhyte, Diana Y.
 Assistant Professor
Barnard, Cindy
 Instructor
Bass, Gordon
 Assistant Professor
Benjamin, Fred P.
 Associate
Bernat, John
 Associate
Bishop, Jacqueline J.
 Instructor
Block, Lenn
 Assistant Professor
Bracken, Robert L.
 Lecturer
Brown, Max D.
 Assistant Professor
Bruhn, Charles E.
 Associate
Bruun, Edward E.
 Instructor
Butler, Peter W.
 Assistant Professor
Campbell, Bruce C.
 Associate Professor
Canna, James J.
 Associate
Carvalho, Anna
 Instructor
Cohen, Barney I.
 Instructor
Counte, Michael
 Associate Professor
Crane, Ernest J.
 Assistant Professor
Cummings, Corenna C.
 Instructor
Currie, Andrew G.
 Instructor
Curry, Patrick J.
 Lecturer

Daniher, Frances A.
 Instructor
DeLashmutt-Robbins, M.
 Instructor
Dickens, Bernard
 Associate
Esmond, Truman H.
 Assistant Professor
Field, Tina M.
 Instructor
Frankenbach, James T.
 Lecturer
Glandon, Gerald L.
 Assistant Professor
Good, Robert C.
 Lecturer
Greenspan, Benn J.
 Associate
Hamilton, Richard A.
 Associate
Haussmann, R. Dieter
 Associate Professor
Hejna, William F.
 Professor
Henderson, Glenda
 Instructor
Herink, Karen
 Instructor
Hinrichs, Bradley
 Instructor
Howard, Diane M.
 Instructor
Jaworski, Stanley D.
 Lecturer
Jelinek, Richard C.
 Professor
Kaatz, Gary E.
 Assistant Professor
Kjerulff, Kristen H.
 Associate
Knepper, Gregg C.
 Instructor
Knight, Russell M.
 Associate
Kraus, Merry Beth
 Instructor
Kronman, Bruce
 Assistant Professor
Larson, John G.
 Associate
Lepper, Mark H.
 Professor
Lerner, Wayne M.
 Associate Professor
 Acting Chairperson
Lewandowski, Robert
 Instructor
Liperis, Chris E.
 Instructor
Lippner, Lewis A.
 Assistant Professor
Loevy, Sara S.
 Assistant Professor
McNulty, Thomas F.
 Associate
Melwak, Maryalice
 Instructor
Menning, Walter R.
 Instructor
Mon, Donald T.
 Instructor

Muenzer, Alan S.
 Lecturer
Necas, Kevin J.
 Instructor
Norman, Jeffrey K.
 Instructor
Oder, Donald R.
 Associate Professor
Paul, Harold A.
 Assistant Professor
Paul, Karen A.
 Lecturer
Perlberg, Anna N.
 Instructor
Perret, Beverly
 Instructor
Perry, Clifford E.
 Instructor
Pierce, Frank A.
 Associate
Roach, William
 Assistant Professor
Rothstein, Ruth M.
 Assistant Professor
Salloway, Jeffrey
 Associate Professor
Sandrick, Edward
 Instructor
Schmidt, Ronald T.
 Instructor
Schuh, Daniel R.
 Instructor
Seim, Sandra K.
 Instructor
Serxner, Brant A.
 Lecturer
Shankar, Mani
 Instructor
Shapiro, Roberta J.
 Instructor
Silverstein, Douglas M.
 Instructor
Sinioris, Marie E.
 Associate Professor
Sochacki, Stacy L.
 Instructor
Thompson, Lee D.
 Assistant Professor
Trufant, John E.
 Associate Professor
Warden, Gail L.
 Associate Professor
Weiser, Stephen J.
 Instructor
Weisman, Nancy E.
 Instructor
Wellman, William L.
 Instructor
Whitaker, Ronald H.
 Instructor
Wolf, James N.
 Assistant Professor
Zeisler, Karl
 Associate Professor

IMMUNOLOGY / MICROBIOLOGY

***Braun, Donald**
 Assistant Professor
Chow, Herbert
 Instructor

***Chudwin, David S.**
 Assistant Professor
***Coon IV, John S.**
 Assistant Professor
Dougherty, Terence J.
 Visiting Associate
 Professor
Dy, Deana L.
 Instructor
***Fiedel, Barry**
 Associate Professor
Fitzgerald, Karen
 Instructor
Gawryl, Maria S.
 Instructor
Gewurz, Anita
 Assistant Professor
***Gewurz, Henry**
 Professor
 Chairperson
Gleicher, Norbert
 Assistant Professor
Golden, Harvey E.
 Assistant Professor
***Harris, Jules E.**
 Professor
Hyde, John S.
 Professor
Kaizer, Herbert
 Associate Professor
Kaplan, Raymond L.
 Assistant Professor
***Kessler, Harold A.**
 Assistant Professor
Kubak, Bernard M.
 Instructor
Landau, William
 Associate Professor
***Landay, Alan**
 Assistant Professor
Levin, Stuart
 Associate Professor
***Lint, Thomas F.**
 Associate Professor
***Luskin, Allan T.**
 Associate Professor
***Marczynska, Barbara**
 Assistant Professor
***Massey, Richard J.**
 Assistant Professor
Merkel, Frederick K.
 Associate Professor
***Mold, Carolyn**
 Associate Professor
Nakayama, Syuei
 Assistant Professor
Ogden, James D.
 Assistant Professor
***Ogston, Charles W.**
 Assistant Professor
***Ornellas, Eugene**
 Assistant Professor
Patterson, Robert
 Instructor
***Peeples, Mark E.**
 Assistant Professor
***Plate, Janet**
 Associate Professor
***Potempa, Lawrence A.**
 Assistant Professor

Rademaker, Dennis E.
Assistant
***Richmond, G. Wendell**
Assistant Professor
Sassetti, Richard J.
Assistant Professor
Schechter, Esther M.
Instructor
Schuytema, Eunice E.
Associate Professor
***Siegel, Joan**
Assistant Professor
Szpindor, Anne
Instructor
***Thomas, Larry**
Assistant Professor
***Venkataraman, M.**
Assistant Professor
Welsh, Thomas J.
Assistant Professor
***Zeitz, Howard J.**
Associate Professor
***Zeller, Janice**
Assistant Professor
Zemel, Edward
Assistant Professor
Zheutlin, Lynne
Instructor

INTERNAL MEDICINE

Abramowitz, Bruce
Assistant Professor
Adelman, Scott H.
Assistant
Adler, Solomon
Associate Professor
Adler, Yolanda T.
Assistant Professor
Aggarwal, Keshav
Assistant Professor
Agruss, Neil
Assistant Professor
Ahmed, Mohammad
Assistant Professor
Akre, Osmund H.
Emeritus Assistant Professor
Alavi, Iltifat A.
Assistant Professor
Ali, Muhammad
Instructor
Aliaga, Jorge
Instructor
Ambrosini, Virginia
Instructor
Anagnos, John
Associate
Anderson, Jeffrey E.
Assistant
Anderson, Kenning M.
Assistant Professor
Andrews, William J.
Associate Professor
Angarita, Luis
Instructor
Armbruster, Kent
Instructor
Aruguete, Christine M.
Instructor
Aruguete, Jose
Instructor

Ashbach, David L.
Associate
Backer, Barbara
Instructor
Bacus, James
Professor
Baldinger, Michael
Instructor
Baldwin, David
Professor
Balkoura, Maria H.
Assistant Professor
Ball, Fred E.
Emeritus Professor
Bardawil, Lawrence W.
Assistant
Barnes, Louis J.
Assistant Professor
Baron, John W.
Assistant Professor
Barrett, Terrence A.
Assistant
Barsanti, Carl M.
Instructor
Barton, Evan M.
Professor
Bartow, Thomas J.
Instructor
Becker, Frank O.
Associate Professor
Belanger, Michael G.
Instructor
Benson, Constance
Assistant
Berger, Barry W.
Instructor
Bice, Michael K.
Assistant Professor
Bidani, Anil
Assistant Professor
Billhardt, Jr., Roger A.
Assistant Professor
Blaauw, Bernard B.
Assistant Professor
Blacklow, Robert
Professor
Bleck, Thomas P.
Assistant Professor
Bleyer, Frank
Assistant
Bloom, Irving
Instructor
Blumberg, Martin B.
Member
Bogdonoff, Maurice L.
Professor
Bohan, John Lynch
Assistant Professor
Bolton, Cornelius F.
Assistant Professor
Bolton, Edmund
Assistant Professor
Bone, Roger C.
Professor
Chairperson
Bonomi, Philip D.
Associate Professor
Boyd, Cynthia E.
Instructor
Braun, Donald
Associate Professor
Bregman, Andrew
Instructor
Breth, George
Assistant Professor
Breuhaus, Herbert C.
Emeritus Associate Professor
Brown, Marie T.
Instructor
Brown, R. Gordon
Associate Professor
Brown, William C.
Assistant Professor
Bucheleres, Gunther H.
Professor
Bulmash, Jack M.
Assistant Professor
Burnstine, Thomas
Assistant
Burroughs, Jefferson M.
Assistant
Butler, Paula R.
Instructor
Campbell, David R.
Assistant
Carasso, Ben
Associate Professor
Carley, Matthew D.
Assistant
Carson, Paul E.
Professor
Carter, Joseph L.
Assistant
Carton, Robert
Professor
Casey, Donald
Instructor
Castaneda, Jorge
Instructor
Catellani, Constance
Assistant Professor
Cavanaugh, Stephanie
Assistant Professor
Chandra, Govind
Instructor
Chapekis, Anthony T.
Assistant
Chase, Robert A.
Assistant
Chavarria, Arturo
Instructor
Chhablani, Ramesh
Assistant Professor
Choi, Chisoo
Assistant
Christen, Charles
Instructor
Clark, James G.
Assistant Professor
Clarke, Jan A.
Instructor
Codini, Michele A.
Associate Professor
Cohen, Gerald
Member
Cohen, Herbert T.
Assistant
Colandrea, Michael A.
Assistant Professor
Cole, David R.
Associate Professor
Cole, Edmond
Assistant Professor
Coleman, Cedric L.
Assistant
Coleman, Henry N.
Associate Professor
Collins, Elbert
Assistant
Collins, James J.
Instructor
Comrie, James M.
Assistant Professor
Conlon, Kevin
Assistant
Conrad, Daniel E.
Assistant Professor
Coogan, Jr., Thomas J.
Associate Professor
Corwin, Howard L.
Assistant Professor
Cotts, William G.
Associate Professor
Cripe, Larry D.
Assistant
Cruz, Sidney R.
Associate
Cuadros, Hugo F.
Assistant Professor
Dampier, Mary F.
Assistant
Daniele, Alice D.
Assistant
Danko, Henry
Instructor
Dauphin, Margaret
Instructor
Davidson, Michael
Assistant
Davis, Andrew M.
Instructor
DeJong, George
Assistant Professor
DeRose, William F.
Assistant Professor
DeYoung, Henry D.
Associate Professor
Deam, Malcolm
Assistant Professor
Debre, Michael W.
Instructor
Denes, Pablo
Professor
Devetski, Robert
Visiting Professor
DiFilippo, Mary E.
Instructor
DiFilippo, Nicholas
Instructor
Diamond, Paul H.
Assistant Professor
Diamond, Peter S.
Instructor
Dillon, Charles D.
Instructor
Ditzian-Kadanoff, Ruth
Assistant
Domont, Lawrence A.
Assistant Professor
Donovan, Keiren C.
Instructor

Faculty Departmental List

Dourdourekas, Demetrio	Fredrick, Earl	Griffin, Karen A.	Hoyer, Danuta K.
Associate	Instructor	Assistant	Assistant
Dow, James W.	Freedman, Philip	Gronich, Joseph	Huber, Janice F.
Emeritus Professor	Professor	Assistant	Assistant
Dowling, Harry F.	Frey, Jr., Charles	Gupta, Brahma N.	Huck, Bruce H.
Emeritus Professor	Assistant	Instructor	Assistant
Dozier, Emanuel V.	Fried, Walter	Gurevich, Boris	Hudson, Edsel K.
Instructor	Professor	Instructor	Associate Professor
DuClos, Terry W.	Frischer, Henri	Guziec, Janice A.	Huff, John P.
Assistant	Professor	Instructor	Assistant
Dugas, Jeffrey	Frost, John	Hahn, Jerome	Hvostik, George
Assistant	Associate Professor	Associate Professor	Assistant
Dunea, George	Frownfelter, Donna L.	Hamb, Aaron	Ing, Todd S.
Visiting Professor	Instructor	Assistant	Associate
Dunlop, John T.	Fuhrer, Jack	Hamburger, Ronald	Jacobson, Burton M.
Instructor	Assistant	Instructor	Assistant Professor
Dwarakanathan, Arcot	furth, Emma E.	Hammond, Artee F.	Jacoby, Russell F.
Assistant Professor	Assistant	Instructor	Assistant
Earle, Richard H.	Gabriel, Bonnie L.	Hanashiro, Paul	Jalowiec, Deborah A.
Associate Professor	Assistant	Associate Professor	Assistant
Ebie, Nyambi	Gadallah, Merit F.	Hanley, Michael	James, Norman M.
Assistant Professor	Assistant	Instructor	Instructor
Economou, Peter G.	Galbraith, William	Hanneken, Anne Marie	Jamieson, Rodney A.
Assistant Professor	Instructor	Assistant	Associate
Edwards, Lynn M.	Galt, Raymond M.	Hansen, Nikolas F.	Jaojaroenkul, Thiti
Instructor	Assistant Professor	Assistant	Assistant Professor
Ellison, Maceo	Garcelon, Ann	Harris, Alan A.	Jean-Jacques, Wilfred
Assistant Professor	Instructor	Associate Professor	Instructor
Epstein, Robert B.	Garland, John T.	Harris, Jules E.	Jeffrey, Rosemarie
Visiting Lecturer	Associate Professor	Professor	Assistant
Erlenborn, James	Garr, William R.	Hatcher, Daniel R.	Jensen, Donald M.
Instructor	Associate	Assistant	Assistant Professor
Eybel, Carl E.	Gasteyer, Theodore	Hauser, Robert G.	Jesser, Kenneth H.
Assistant Professor	Assistant Professor	Associate Professor	Assistant
Ezri, Marilyn	Gawlik, Gerald M.	Hayes, Roberta	Johnson, Mary M.
Assistant Professor	Instructor	Instructor	Assistant
Fagan, Kathleen M.	Gdalman, Louis	Heckerling, Paul	Jones, Frank W.
Instructor	Emeritus Professor	Assistant Professor	Emeritus Assistant
Farago, Peter J.	Geller, Steven M.	Hedblom, Jr., Carl A.	Professor
Lecturer	Assistant	Associate Professor	Instructor
Farber, Steven S.	Gerstad, Nancy A.	Hegyvary, Csaba	Jones, Jerry L.
Assistant	Instructor	Professor	Instructor
Farbstein, Samuel A.	Gewurz, Henry	Heller, Paul	Jones, Philip N.
Instructor	Professor	Visiting Professor	Professor
Felix, Robert E.	Gill, Sukhjit	Henikoff, Leo M.	Jurivich, Donald A.
Assistant Professor	Assistant Professor	Professor	Assistant
Felsenthal, Susan	Giuffre, Verlin W.	Hernandez, Beatrice	Kaganiec, Irene G.
Instructor	Instructor	Instructor	Associate Professor
Fields, Constance D.	Glickman, Paul B.	Hernandez, Fernando	Kale, Scott A.
Assistant	Associate Professor	Assistant	Instructor
Fischer, Conrad S.	Goldberg, Gary	Hertko, Leonard	Kallick, Charles
Assistant Professor	Instructor	Associate Professor	Assistant Professor
Fisher, Raymond L.	Golden, Harvey E.	Heymann, Mark	Kaminski, Ernest J.
Instructor	Associate Professor	Instructor	Assistant
Flanagan, George C.	Goldstein, Maurice S.	Hilgard, James H.	Kaminski, Ludwig
Associate Professor	Professor	Assistant	Assistant Professor
Flanagan, Thomas	Goodman, Lawrence	Hines, Jr., David W.	Kang, Bann
Instructor	Assistant Professor	Assistant	Associate Professor
Foody, James J.	Gorman, Paul N.	Hirsch, Daniel J.	Kanis, Lorraine J.
Instructor	Instructor	Assistant	Instructor
Forbes, Janet Y.	Gotterer, Gerald S.	Hochstim-Carley, Nina	Kaplan, Raymond L.
Instructor	Assistant Professor	Assistant	Assistant Professor
Foster, Dale	Gottlieb, Emily	Hoeltgen, Thomas M.	Karakusis, Peter H.
Instructor	Assistant Professor	Assistant Professor	Assistant Professor
Foth, Richard P.	Graettinger, John S.	Hoeppner, Walter F.	Kark, Robert M.
Instructor	Professor	Emeritus Professor	Distinguished Professor
Fox, Jacob H.	Green, Barbara J.	Hollinger, Walter	Kasinath, Balakuntalam
Assistant Professor	Assistant	Instructor	Assistant Professor
Franklin, James L.	Gregory, Stephanie A.	Hoshizaki, Robert J.	Kassriel, Robert S.
Associate Professor	Associate Professor	Instructor	Instructor

Kehoe, William R. Assistant Professor	Larach, Juan C. Assistant	Malhotra, Madhu Instructor	Mon, Richard L. Instructor
Kelley, Eric Instructor	Lawlor, Mary Instructor	Malik, Khadija Instructor	Moneer, Yusuf Assistant Professor
Kelly, Jr., Frank B. Associate Professor	Layer, Lawrence Assistant Professor	Mannina, Anthony J. Assistant	Moon, Byong Assistant Professor
Kelly, Frank C. Assistant	Lee, Russell M. Assistant	Mannweiler, Nancy E. Assistant	Moore, Kenneth L. Instructor
Keomuan, Poonsri Instructor	Leiden, Amy Assistant	Marbach, Walter J. Instructor	Moore, W. Aubrey Assistant Professor
Kessler, Harold A. Assistant Professor	Leist, Michael Assistant Professor	Margules, Kenneth R. Instructor	Morris, Arthur M. Instructor
Khan, Abdul K. Instructor	Lepper, Mark H. Professor	Marinelli, Antony Assistant Professor	Morris, Gerald D. Instructor
Khan, Saeed Assistant	Leslie, William T. Assistant	Markey, William S. Assistant Professor	Muehrcke, Allan O. Instructor
Khouzam, Atef Instructor	Lessin, Barry D. Assistant	Markovitz, David Instructor	Muehrcke, Robert C. Professor
Kinney, Janet Emeritus Associate Professor	Lev, Maurice Distinguished Professor	Marks, Helen M. Assistant	Muenster, Joseph J. Professor
Kioutas, Theodosis Instructor	Levin, Joel M. Assistant Professor	Marshall, Paul N. Assistant Professor	Mularczyk, Joseph Instructor
Kirkland, Wallace W. Associate Professor	Levin, Mark H. Instructor	Martin, John E. Associate Professor	Mulligan, Kathryn Assistant
Kistler, George Assistant	Levin, Robert D. Assistant Professor	Martin, Michael Instructor	Nagaraju, R. Instructor
Klinger, Alfred D. Associate	Levin, Stuart Professor	Martinez, Charles J. Assistant Professor	Narcelles-Mon, Leilani Instructor
Knight, Raymond W. Assistant Professor	Levine, Charlotte C. Instructor	Matthew, Guy R. Associate Professor	Neal, Richard H. Associate Professor
Knospe, William H. Professor	Levine, Milton D. Associate Professor	Mattis, Richard C. Assistant Professor	Neguin, Noel D. Member
Knott, Jr., A. Paul Instructor	Levitin, Ruven Professor	McCormick, Alice Assistant	Nelson, Bertram Professor
Kobrosky, Neil Assistant	Lewis, Bruce Assistant	McCormick, Patrick J. Instructor	Nelson, Jeffre A. Assistant
Konkle, Barbara Instructor	Lewis, Edmund J. Professor	McCreary, Patricia A. Associate Professor	Neri, Jr., Gilberto S. Assistant Professor
Korbet, Stephen M. Instructor	Liebson, Philip R. Associate Professor	McKendry, Justin Assistant	Newman, Julius S. Assistant Professor
Korn, Jr., Roy Assistant	Lietz, Stephen T. Assistant	McKenna, Rajalaxmi Associate Professor	Nicholas, W. John Assistant
Kornel, Ludwig Professor	Lim, Toh Hoai Instructor	McKenna, William W. Assistant Professor	Northrop, Greta Associate Professor
Kotin, Anthony M. Assistant Professor	Lindenberger, Martin S. Instructor	McLaughlin, Margaret Assistant Professor	O'Brien, Donald E. Emeritus Associate Professor
Kowalski, John A. Instructor	Lisberg, Edward E. Assistant	McLeod, Bruce C. Associate Professor	O'Brien, John F. Assistant Professor
Kowalski, Timothy F. Assistant	Lorsch, Steven R. Assistant	McMillan, J. Charles Emeritus Professor	O'Donoghue, J. Kevin Assistant Professor
Kraker, Steven K. Assistant	Lowell, Douglas G. Assistant	McRae, Jr., Roy Assistant	O'Donovan, T. Paul Assistant Professor
Krasnow, Sheldon E. Professor	Lubell, David L. Associate Professor	Medenits, Vidvuds Assistant Professor	Odland, Blair Instructor
Kroger, Elliott Assistant Professor	Lucero, Roger A. Instructor	Meredith, Paul A. Emeritus Associate Professor	Olson, Bruce A. Assistant Professor
Kulis, John C. Member	Luger, Gerald Instructor	Merkel, Frederick K. Associate Professor	Orlowski, Janis M. Assistant
Kuyzin, Lanis L. Instructor	Luskin, Allan T. Associate Professor	Merwick, Patricia A. Assistant Professor	Ornellas, Eugene Assistant Professor
Kuznetsky, Kenneth A. Instructor	MacLeod, Catherine M. Assistant Professor	Messer, Joseph V. Professor	Oyama, Joseph H. Assistant Professor
Kwiecinski, Michael Instructor	Madden, Thomas Assistant Professor	Meyer, John H. Associate	Pamukcu, Rifa Assistant
Laing, Grant H. Emeritus Professor	Madhav, Gopal Instructor	Miller, Elinor Instructor	Parsons, Robert Visiting Assistant Professor
Lal, Anand Instructor	Maffey, Susan Assistant	Millman, William L. Associate	Passovoy, Robert D. Assistant Professor
Lane, James T. Assistant	Magana, Lilliam C. Instructor	Misch, Donald Instructor	

Faculty Departmental List

Patel, Jagdish R. Instructor	Rieger, Patricia Instructor	Schraufnagel, Mary N. Instructor	Smith, Daniel J. Instructor
Paul, Tarak N. Instructor	Ries, Michael Assistant Professor	Schuessler, Roger R. Assistant Professor	Smith, Earl C. Associate Professor
Payne, John A. Associate Professor	Riff, Donald P. Assistant Professor	Schulte, Eric Assistant	Snapp, Marshall Associate
Peterson, Arthur R. Associate	Roberg, Norman B. Emeritus Professor	Schultz, Stephen M. Assistant	Snell, R. Jeffrey Assistant
Petrak, Richard A. Assistant	Roberts, Jimmy Associate Professor	Schwartz, Maurice A. Associate Professor	Sobin, W. Harley Instructor
Petrak, Russell M. Instructor	Rorig, James C. Instructor	Schwartz, Theodore B. Professor	Sokalski, Steven J. Visiting Assistant
Petropoulos, A. Tom Instructor	Rosen, Robert L. Assistant Professor	Schwartzman, William Instructor	Professor
Phelan, John M. Assistant	Rosenberg, Alan S. Instructor	Scupham, William K. Assistant Professor	Sokol, Norton M. Assistant Professor
Phelan, William H. Associate Professor	Rosenberg, Marvin S. Associate Professor	Secemsky, Solomon Instructor	Solliday, Norman H. Instructor
Pierce, Mila I. Distinguished Professor	Rosenblate, Howard Assistant Professor	Segreti, John Instructor	Somberg, Alvin Assistant Professor
Pineless, Gary R. Assistant	Rosenblum, Joseph Assistant	Shah, Jagdish R. Instructor	Sprague, Stuart M. Assistant
Plate, Janet Associate Professor	Rosenbush, Stuart Assistant Professor	Shah, Mahendra M. Instructor	Staats, David O. Instructor
Pobanz, Donovan M. Member	Roskelley, Rigby C. Emeritus Professor	Shallat, Charles H. Assistant Professor	Stabell, Erik C. Assistant
Pomerantz, Rhoda S. Associate Professor	Rosman, Joseph K. Assistant Professor	Shannon, Kathleen Assistant	Stabell, Kristen M. Assistant
Ponsiglione, John D. Assistant Professor	Rossof, Arthur H. Associate Professor	Sharma, Rajesh Instructor	Stamler, Jeremiah Visiting Professor
Popper, Michael S. Assistant Professor	Rotenberg, Morray L. Instructor	Sharon, Greg E. Assistant	Stanley, Robert E. Instructor
Port, Jeffrey H. Instructor	Rowland, Jr., Kendrith Assistant	Sheridan, Patrick Instructor	Stavinga, Ronald E. Assistant Professor
Pottage, Jr., John Assistant	Ruggie, Neal T. Assistant Professor	Sherman, Sanford S. Assistant	Stein, Peter M. Assistant
Principe, John Assistant	Russe, Henry P. Professor	Shewmake, Floyd Associate	Stein, Robert N. Assistant Professor
Puray, Milagros D. Assistant Professor	Russell, Hugh D. Instructor	Shima, Mark A. Assistant Professor	Steinecker, Gary A. Instructor
Qazi, Masood A. Instructor	Ryan, Will G. Professor	Short, Ronald M. Assistant	Stibolt, Thomas Assistant Professor
Radosevich, Cynthia A. Assistant	Saavedra, Richard A. Associate Professor	Showel, John L. Associate Professor	Stine, Terry M. Assistant
Rahn, Ada Instructor	Salomon, Alexander Member	Shroff, Subodh S. Instructor	Stocker, Michael Assistant Professor
Raines, Dale S. Associate Professor	Salzman, Gary H. Instructor	Siegfried, J. David Instructor	Stokar, Elliot Instructor
Raines, Robert A. Instructor	Santucci, Barbara Assistant Professor	Siglin, Martin G. Assistant Professor	Strub, Margaret B. Assistant
Ramakrishna, B. Instructor	Sassetti, Richard J. Associate Professor	Silins, V. Raymond Assistant Professor	Stuppy, George W. Emeritus Professor
Ramsey, Michael M. Associate Professor	Schaffner, John A. Assistant Professor	Silver, Marc A. Assistant	Subramani, Govindaraju Instructor
Range, Charles L. Associate Professor	Scheetz, Annette A. Instructor	Silver, Michael Assistant	Sugimoto, Danny H. Assistant
Razma, Antanas G. Instructor	Schick, Armin F. Visiting Assistant Professor	Simon, Laura Instructor	Sullivan, Daniel P. Assistant
Reed, Byron Instructor	Schick, Vernon F. Emeritus Professor	Sipkins, James H. Instructor	Susmano, Armando Associate Professor
Reese, Thomas C. Instructor	Schlesinger, Marc L. Instructor	Sittler, Stephen S. Instructor	Tarun, Donald Emeritus Associate Professor
Regal, Edward M. Assistant Professor	Schmidt, Paul J. Assistant	Skul, Vesna Assistant	Tarzynski-Potempa, R. Assistant
Reid, Robert H. Assistant Professor	Schneiderman, Elyse Assistant	Slayton, Robert E. Associate Professor	Tarzynski, Marian S. Assistant Professor
Rennie, I. Drummond Professor	Schoenberger, James A. Professor	Sloan, Sheldon Assistant	Tatum, Vaughn Instructor
Richmond, G. Wendell Assistant Professor	Schorn, Thomas Assistant	Slodki, Sheldon Associate Professor	Tausk, Kasriel Associate Professor

Taylor, Prentiss
Instructor
Taylor IV, Samuel G.
Assistant Professor
Taylor, Samuel G.
Emeritus Professor
Thompson, Ray E.
Assistant Professor
Thomson, Andrew
Associate Professor
Thomson, Cameron
Instructor
Timmons, John A.
Assistant
Toman, Maralyn E.
Instructor
Trenholme, Gordon M.
Associate Professor
Trobaugh, Jr., Frank E.
Professor
Trubitt, Mitchell J.
Assistant Professor
Trybula, Marion A.
Assistant
Tucker, W. Randolph
Associate Professor
Twiss, Alston C.
Associate
Tyszka, Thomas S.
Assistant Professor
Uretz, Eugene F.
Assistant Professor
Van Valen, Phebe
Lecturer
Venkataraman, M.
Instructor
Veres-Thorner, C.
Assistant Professor
Vicari, Ralph
Assistant
Vidinli, Mustafa
Instructor
Von Behrens, Wieland
Assistant Professor
Von Roenn, Jamie E.
Assistant
Wadgaonkar, Sudhanva
Instructor
Wakefield, Howard
Emeritus Professor
Walsh, Kenneth A.
Assistant
Walsh, Patricia A.
Instructor
Wang, Benjamin J.
Instructor
Warren, Karen L.
Assistant
Waskin, Hetty A.
Instructor
Weens, Joan
Assistant Professor
Weinstein, Karen B.
Assistant
Weller, Herschel
Instructor
West, James W.
Assistant Professor
Westerman, Maxwell P.
Professor

Williams, Jack
Instructor
Williamson, Wayne
Instructor
Wilson, James R.
Assistant
Wing, Herman
Professor
Winter, Paul L.
Associate Professor
Winterfield, Jr., Roland
Instructor
Wolfe, Charles K.
Associate Professor
Wolter, Janet
Professor
Wong, Cynthia
Assistant
Wong, Paul W.
Professor
Yadava, Ved Prakash
Assistant Professor
Yasoff, W. Alan
Instructor
Yellen, Harry J.
Assistant Professor
Yellen, Steven F.
Instructor
Zahtz, Merrill
Instructor
Zallik, Ned I.
Assistant
Zaverdas, George
Assistant
Zeitz, Howard J.
Assistant Professor
Zelinger, Allan B.
Instructor
Ziarko, Jr., Mitchell
Instructor
Zitnik, Ralph S.
Associate Professor
Zoldan, Jack
Instructor

MEDICAL NURSING
Ambutas, Shirley
Instructor
Baumann, Dorothy
Instructor
Braun, Lynne
Assistant Professor
Busby, Jean
Instructor
Carlson, Elizabeth
Assistant Professor
Assistant Chairperson
Casanova, Nancy K.
Instructor
Christopher, Beth A.
Assistant Professor
Colletti, Mary Ann
Instructor
Costello, Kathy
Associate
Davis, Phyllis
Instructor
Dean-Baar, Susan
Assistant Professor
Dillon, Paula
Instructor

Dix-Sheldon, Deborah
Instructor
Donaldson, Sue
Associate Professor
Donovan, Marilee
Associate Professor
Chairperson
Edwards, Lauren
Instructor
Elpern, Ellen H.
Assistant Professor
Fisli, Barbara A.
Instructor
Flood, Suzanne
Instructor
Fox, Juanita J.
Associate
Fruth, Roberta
Assistant Professor
Galanes, Susan E.
Associate
Gobel, Barbara
Instructor
Gulanick, Mary Ellen
Associate
Hawrysiak, Andrea
Instructor
Hegyvary, Sue
Professor
Howard-Ruben, Josie
Instructor
Janik, Angela M.
Instructor
Jassak, Patricia
Associate
Jezek, Judith
Assistant Professor
Johnson, Barbara Jo
Associate
King, Maureen A.
Associate
Kirchhoff, Karin
Associate
LaValle, Sue
Instructor
Lawson, Lauren
Assistant Professor
Mallory, Gail
Assistant Professor
Matuska, Susan
Instructor
McCann, Judith
Assistant Professor
McHale, Marnie
Instructor
Michalski, Elizabeth
Instructor
Milburn, Carol
Associate
Minton, Paula
Associate
Monico, Linda
Assistant Professor
Nisius, Sharon
Assistant Professor
Ogrinc, Mary L.
Instructor
Owens-Jones, Sandra
Instructor
Pencak, Marcia
Assistant Professor

Perlia, Mildred
Assistant Professor
Quinn, Laurette
Instructor
Rooney, Anne
Associate
Schreiber, Nancy
Instructor
Shahinpour, Nayereh
Assistant Professor
Sheehan, Maureen
Instructor
Shekleton, Maureen
Assistant Professor
Assistant Chairperson
Shidler, Helen
Instructor
Smith, Xavier P.
Instructor
Thielbar, Sharon
Assistant Professor
Wickham, Rita
Instructor
Zeller, Janice
Assistant Professor

NEUROLOGICAL SCIENCES
Adelman, Philip A.
Assistant
Bailey, Orville T.
Visiting Professor
Bergen, Donna
Associate Professor
Berger, Victor P.
Instructor
Bikhorn, Barry H.
Assistant
Bleck, Thomas P.
Assistant Professor
Bruetman, Martin E.
Professor
Buchman, Aron S.
Assistant
Carvey, Paul
Assistant Professor
Catchpole, Hubert R.
Visiting Professor
Cohen, Maynard
Professor
Coker, Steven B.
Instructor
Corrin, Lesley
Assistant
Daugherty, William
Instructor
Davis, Floyd A.
Professor
de Toledo-Morrell, L.
Associate Professor
Dunne, Thomas C.
Assistant
Egel, Robert T.
Assistant Professor
Eytan, Serge S.
Assistant Professor
Fox, Jacob H.
Associate Professor
Garvin, John S.
Visiting Professor
Glantz, Russell
Assistant Professor

Faculty Departmental List

Goetz, Christopher	Stefoski, Dusan	Bereza, Deanne	Adkins, Geoffrey
Assistant Professor	Assistant Professor	Instructor	Instructor
Goldberg, Hilda R.	Stein, Robert W.	Blackwell, Jane	Akhter, Naheed
Visiting Assistant Professor	Instructor	Assistant Professor	Instructor
Harris, Mark I.	Tanner, Caroline	Bobek, Bonnie	Ambrose, Laureen
Assistant	Assistant	Instructor	Instructor
Harrison, William	Topel, Jordan L.	Brown, Dawn	Anderson, Jr., Robert A.
Professor	Assistant Professor	Instructor	Associate Professor
Hartmann, J. Francis	Turkewitz, L. Jay	Cagan, Janyce	Anderson, Richard W.
Emeritus Professor	Assistant Professor	Assistant Professor	Instructor
Helgason, Cathy M.	Vern, Boris A.	De Monterice, Donna	Archie, Julian T.
Assistant	Assistant Professor	Assistant Professor	Assistant Professor
Herba, Edward J.	Vidaver-Cohen, Doris	Di Costanzo, Camille	Arjmand, Alieh
Assistant Professor	Assistant Professor	Instructor	Instructor
Hirsch, Alan R.	Whisler, Walter	Dwass, Golda	Arora, Vipal K.
Assistant	Professor	Instructor	Instructor
Hoepfner, Thomas J.	Wichter, Melvin	Firman, Sue	Axelrod, Edward H.
Associate Professor	Assistant Professor	Associate	Assistant Professor
Huckman, Michael S.	Wright, Robert B.	Fournier, Linda	Badowski, Andrew K.
Professor	Assistant	Graf, Linda	Assistant Professor
Kessler, Elizabeth	Zimmerman, Roger P.	Graf, Ronald	Basuray, Rita
Assistant Professor	Assistant Professor	Instructor	Assistant Professor
Klawans, Harold	NEUROLOGICAL SURGERY	Jacobi, Angela	Baum, Hugo C.
Professor		Assistant Professor	Emeritus Associate Professor
Kohn, Norman	Amine, Abdul R. C.	Johnson, Martha	Baydoun, Adnan B.
Instructor	Associate	Instructor	Associate
Kumar, Sudhir	Corcos, Daniel M.	Jones, Faith M.	Bazile, Frantz
Associate Professor	Instructor	Associate Professor	Instructor
McDermott, Joseph E.	Cybulski, George R.	Jursich, Catherine	Beebe, Robert A.
Assistant	Assistant	Instructor	Emeritus Associate Professor
Melyn, Michelle	D'Angelo, Charles M.	Karacic, Barbara	Behrend, Frank L.
Assistant Professor	Associate Professor	Instructor	Instructor
Michael, Joel A.	DiGianfilippo, Anthony	Karrow, Lee	Birnholz, Jason C.
Associate Professor	Assistant	Associate	Assistant Professor
Moore, Kenneth L.	Flannery, Ann M.	Kubiak, Linda	Bissinger, Craig
Assistant Professor	Instructor	Instructor	Assistant
Morell, Frank	Grylinski, Martin E.	Leahy, Mary	Blankshain, Richard H.
Professor	Assistant	Instructor	Assistant Professor
Nelson, Erland R.	Kroin, Jeffrey S.	MacMullen, Nancy	Bourque, Joseph
Professor	Assistant Professor	Assistant Professor	Assistant
Nora, Lois M.	Maltezos, Stavros N.	Martinez, Mollena	Boysen, Harry
Assistant	Assistant	Instructor	Professor
Oates, Charles	Oldberg, Eric	Mueller, Laura	Boysen, Lawrence D.
Assistant	Emeritus Professor	Instructor	Assistant
Page-El, Edward	Penn, Richard D.	Muellner, Maggie	Bray, James B.
Assistant Professor	Associate Professor	Instructor	Instructor
Palac, Susan M.	Ready, Richard	Naber, Sarah	Brody, Charlotte S.
Assistant	Instructor	Assistant Professor	Assistant
Patel, Narendra	Sugar, Oscar	Associate Chairperson	Brubaker, Linda
Assistant	Visiting Professor	O'Brien, Joan	Calderon, Julio
Pavlou, Marcia	Torres, Hernando	Instructor	Carroll, John
Assistant Professor	Associate Professor	O'Connor-Tyrell, S	Instructor
Price, Susan K.	Von Roenn, Kelvin A.	Instructor	Cava, Jose M.
Assistant	Assistant Professor	Perlis, Deborah	Assistant Professor
Reyes, Marcelino G.	Whisler, Walter	Assistant Professor	Cavanaugh, Stephanie
Assistant Professor	Professor	Polinski, Carol	Assistant Professor
Ristanovic, Ruzica	Chairperson	Instructor	Chandler, Jesse
Assistant Professor	Yuk, Antonio C.	Prohov, Laura	Instructor
Schauf, Charles	Assistant	Associate	Chronis, Basil G.
Professor	OBSTETRICAL & GYNECOLOGICAL NURSING	Schneider, Patricia	Instructor
Schwartz, Michael R.	Adams, Constance	Instructor	Coultrip, Laura L.
Assistant Professor	Professor	Semprevivo, Diane	Instructor
Sella, Michael Z.	Chairperson	Assistant Professor	Coupet, Edouard
Assistant Professor	Arnold, Carolyn	OBSTETRICS & GYNECOLOGY	Instructor
Shenker, David M.	Instructor	Barrett, Sue	Dalal, Suniti
Assistant Professor	Acharya, Vasant	Instructor	Instructor
Siegel, Irwin	Assistant Professor		
Associate Professor			

Daniel, Ronald O.	Hobbs, John	Miller, Jack M.	Skul, Vladimir
Instructor	Assistant Professor	Assistant Professor	Assistant Professor
Del Granado, Alfonso	Ichniowski, Richard F.	Molnar, Marija V.	Smith, Florence A.
Assistant Professor	Associate	Instructor	Associate
Delneky, Peter M.	Ihara, Dennis M.	Morris, Booker T.	Stagno, Anthony
Instructor	Instructor	Assistant	Instructor
Dennis, Vernon L.	Imperial Hizon, A.	Moss, Percy C.	Stankevych, George
Assistant Professor	Assistant Professor	Instructor	Instructor
Deppe, Gunter	Jagodzinski, Benjamin	Murray, Meredith B.	Stepto, Robert C.
Associate Professor	Assistant Professor	Assistant Professor	Professor
DiGiulio, Thomas A.	Janus, Linda M.	Nagel, Jr., B. Michael	Sterman, Ellen
Assistant	Assistant Professor	Assistant	Assistant
Dmowski, W. Paul	Jarrett, Theodore A.	Nama, Prabhavathi	Strassner, Howard
Professor	Instructor	Assistant Professor	Assistant Professor
Dolan, Thomas E.	Jeyendran, Rajasingam	Neches, Norman M.	Strayhorn, Earlene E.
Associate	Assistant Professor	Assistant Professor	Assistant
Donovan, William H.	Jimenez, Francisco R.	Associate Chairperson	Stringer, Jr., Nelson H.
Associate	Instructor	Novosel, Nickola	Assistant Professor
Douvas, Stavros	Kelly, Maureen P.	Instructor	Strote, Scott E.
Assistant Professor	Assistant	Olsen, Norman M. C.	Instructor
Dumitru, Ion	Kennedy, William P.	Assistant Professor	Sturdevant, Frank
Assistant Professor	Assistant Professor	Instructor	Instructor
Dy, Johnson	Kett, Dwight D.	Assistant Professor	Sullivan, Jr., John E.
Instructor	Assistant	Instructor	Associate
Elrad, Haim	Knipmeyer, Jay W.	Associate Professor	Summers, Sondra L.
Assistant Professor	Instructor	Instructor	Assistant
Evenhouse, Henry J.	Kobak, Alfred	Associate Professor	Taylor, Lyndon
Assistant Professor	Instructor	Instructor	Instructor
Farmans, Michael S.	Krause, Charles D.	Associate Professor	Threatte, James A.
Assistant Professor	Emeritus Assistant	Instructor	Instructor
Fernandez, Rafael	Kubycheck, Russell M.	Associate Professor	Tripp, Lee A.
Instructor	Instructor	Assistant	Instructor
Finola, George C.	Kurotsuchi, Roy Y.	Associate Professor	Truchly, Vasil
Emeritus Assistant	Associate	Assistant Professor	Assistant Professor
Fitzgibbons, James P.	Lafon, Michael C.	Emeritus Professor	Upadhyaya, Varsha V.
Associate Professor	Assistant	Instructor	Instructor
Friberg, Jan	Larson, Paul R.	Associate Professor	Valcarenghi, Maurice
Associate Professor	Assistant Professor	Assistant	Assistant
Friberg, Siri I.	Lawson, Clyde	Associate Professor	Vento, Elio G.
Assistant Professor	Instructor	Assistant Professor	Assistant Professor
Galloway, Booker T.	Lawson, Leonard J.	Associate Professor	Vlasis, George P.
Instructor	Assistant Professor	Associate Professor	Associate Professor
Galvez, Carmencita	Lee, Robert J.	Associate Professor	Warren, Dawn Marie
Instructor	Assistant Professor	Instructor	Assistant Professor
Garcia, Carolyn L.	Lin, Mali	Associate Professor	Watson, Jr., Arthur C.
Assistant	Instructor	Assistant Professor	Assistant Professor
Geitmann, William F.	Lindgren, Robert	Associate Professor	Weeks, Peter J.
Associate Professor	Instructor	Instructor	Assistant
Gleicher, Norbert	Long, John S.	Associate Professor	Wetzel, Ann
Professor	Assistant Professor	Assistant Professor	Assistant
Gottschalk, William	Mack, Stephen	Associate Professor	Weyrens, Francis P.
Professor	Assistant Professor	Instructor	Assistant Professor
Graham, James E.	Maclin, Victoria	Associate Professor	Wilbanks, George D.
Assistant Professor	Assistant	Professor	Chairperson
Griffiths, Stephanie	Mar, Calvin M.	Associate Professor	Wilhelm, Emanuel C.
Instructor	Assistant	Associate Professor	Associate Professor
Gumpel, Janis A.	McCartney, Charles P.	Instructor	Wittman, Randy S.
Instructor	Emeritus Professor	Instructor	Assistant
Haag, Mary K.	Mehta, Munkundini	Instructor	Wolff, John R.
Assistant	Instructor	Instructor	Emeritus Professor
Hansfield, Scott	Meier, Werner	Instructor	Wynn, Ralph M.
Assistant	Assistant Professor	Instructor	Professor
Hasson, Harrith	Mercer, Thomas H.	Instructor	Yordan, Edgardo
Associate Professor	Associate	Instructor	Assistant Professor
Hayes, Ernest	Merrick, Frank W.	Instructor	Yrapsis, Nicholas
Instructor	Assistant Professor	Instructor	Instructor
Hercule, Jacques	Meserow, James A.	Associate	Zaneveld, Lourens
Instructor	Instructor	Associate	Professor
Hesseltine, H. Close	Miller, Cheryl K.	Associate	Zelingher, Bernard B.
Professor	Instructor	Assistant	Assistant Professor

Ziebel, Dana
Assistant

OPHTHALMOLOGY

Arnell, Lantz
Assistant Professor

Bennett, Thomas O.
Instructor

Blaine, Richard M.
Associate

Brown, David V. L.
Assistant Professor

Cannon, Robert L.
Assistant Professor

Dado, Jr., Ralph N.
Instructor

Dangles, George J.
Instructor

Dennis, Richard F.
Assistant Professor

Deters, Curtis F.
Assistant Professor

Deutsch, Thomas A.
Assistant Professor

Deutsch, William E.
Professor
Chairperson

Dolezal, Edward G.
Assistant

Epstein, Randy J.
Instructor

Feinhandler, Harold S.
Assistant Professor

Feldman, Sandy T.
Assistant

Fick, Bruce D.
Associate

Granadier, Robert J.
Assistant

Haas, Joseph S.
Emeritus Professor

Hackett, John N.
Associate

Hagens, Walter E.
Assistant Professor

Hamming, Nancy A.
Instructor

Holland, John J.
Instructor

Hughes, W. Franklin
Associate Professor

Hughes, William F.
Emeritus Professor

Karpik, Alice G.
Instructor

Keys, Cheryl L.
Assistant

Khadem, May
Instructor

Kirk, Harold Q.
Associate Professor

Korey, Michael
Instructor

Lee, Chang Bok
Assistant Professor

Lewicky, Andrew O.
Assistant Professor

LoBue, Thomas D.
Assistant

Lucchese, Neil J.
Instructor

Lunde, Mark
Assistant Professor

Mann, Edward P.
Instructor

McLachlan, Daniel L.
Instructor

Mets, Marilyn
Lecturer

Mizen, Thomas
Instructor

Moncreiff, William F.
Emeritus Professor

Mundt, G. Henry
Assistant Professor

Nootens, Raymond H.
Assistant Professor

Nowicki, Norbert J.
Assistant Professor

Panton, John H.
Associate

Pushkin, Edward A.
Emeritus Professor

Radivila, Izolda M.
Instructor

Rae, James L.
Professor

Rosenberg, Michael A.
Lecturer

Rubenstein, Jonathan B.
Instructor

Sanders, Donald R.
Visiting Assistant
Professor

Schenk, Alan G.
Instructor

Scheribel, Karl
Emeritus Professor

Spindel, David
Assistant Professor

Spiro, Barbara
Associate

Stein, Robert M.
Instructor

Stolar, Joel
Instructor

Szatkowski, Mary
Instructor

Talbert, Kenneth E.
Assistant

Tresley, Jack
Instructor

Wyhinny, George
Assistant Professor

**ORTHOPEDIC
SURGERY**

Ackman, Jeffrey D.
Assistant

Adams, Verdine
Instructor

Ahstrom, Jr., James P.
Associate

Al Aswad, Basel
Instructor

Andersson, Gunnar
Visiting Professor

Andriacchi, Thomas P.
Associate Professor

Arazoza, Antonio
Assistant

Azouz, David
Instructor

Beck, Robert
Assistant Professor

Belcher, Meriwyn
Instructor

Berchuck, Matthew
Assistant

Boscardin, James B.
Instructor

Bosch, Albert V.
Assistant Professor

Brackett, E. Boone
Associate

Brown, Lorin M.
Instructor

Brugioni, Daniel J.
Assistant

Buseck, Mark S.
Assistant

Bush-Joseph, Charles
Assistant

Byers, Sharon

Instructor

Casini, Jack G.
Instructor

Chan, Paulino

Instructor

Chaudhuri, Gouri

Instructor

Clark, David J.

Instructor

Colmey, Thomas

Instructor

Corzatt, Richard D.
Associate Professor

Couden, Trevert

Assistant Professor

D'Silva, Joseph L.

Assistant

De Wald, Ronald L.

Professor

Fister, James S.

Instructor

Flynn, Jr., John F.

Instructor

Galante, Jorge O.

Professor

Chairperson

Gilligan, William J.

Assistant Professor

Girzadas, Daniel V.

Associate Professor

Gitelis, Steven

Assistant Professor

Goldflies, Mitchell L.

Instructor

Gomez, Francisco

Instructor

Haas, Brian D.

Assistant

Hammerberg, Kim

Instructor

Hampton, Steven

Assistant Professor

Hark, Fred W.

Emeritus Professor

Heck, Charles V.

Professor

Hejna, William F.

Professor

Heligman, David

Assistant

Jablon, Michael
Assistant Professor

Jacker, Michael
Assistant

Kaushal, Satya P.
Assistant Professor

Kimura, James H.
Associate Professor

Kuettner, Klaus E.
Professor

Kuo, Ken Nan
Associate Professor

Labanauskas, Ignas
Assistant

Lambert, Claude N.
Emeritus Professor

Lambur, James A. K.
Assistant Professor

Landon, Glenn C.
Assistant Professor

Levin Jay L.

Assistant

Luke, Kevin W.
Assistant

McCarren, Edward J.
Assistant Professor

McNeill, Thomas
Associate Professor

Miller, Robert
Instructor

Morgenstern, Jacob M.
Instructor

Morgenstern, Sidney
Associate

Mox, Scott W.
Assistant

Newman, Daniel C.
Assistant Professor

Oh, Sai Hwan
Instructor

Orth, Michael W.
Assistant Professor

Post, Melvin
Professor

Pyati, Prahlad
Assistant Professor

Redondo, Luis G.
Assistant Professor

Rivero, Dennis P.
Instructor

Rosenberg, Aaron
Instructor

Rostoker, William
Visiting Professor

Sandell, Linda
Assistant Professor

Savino, Anthony W.
Instructor

Schajowicz, Fritz
Distinguished Professor

Scheer, Steven J.
Assistant Professor

Schenck, Robert R.
Assistant Professor

Schenk, Robert K.
Visiting Professor

Shafer, Sid J.
Assistant Professor

Shapiro, Jules S. Assistant Professor	Corey, Jacquelynne Instructor	Brown, Elizabeth Assistant	Moran, Thomas E. Associate
Sheinkop, Mitchell B. Assistant Professor	Friedberg, Stanton A. Professor	Chacho, Mary S. Assistant	Nevalainen, David Associate Professor
Sidell, Richard Instructor	Gavron, Joseph P. Instructor	Clasen, Raymond A. Associate Professor	Pauli, Bendict U. Professor
Siegel, Irwin Associate Professor	Girgis, Tawik F. Assistant Professor	Coon IV, John S. Associate Professor	Pearlman, Eugene Assistant Professor
Singh, Monmohan Assistant Professor	Griffith, Thomas E. Lecturer	Dainauskas, John R. Associate Professor	Pearson, Roger W. Associate Professor
Sodetz, Richard A. Assistant Professor	Hanna, Wafik A. Assistant Professor	Dwyer, William Instructor	Piehl, Michael R. Assistant
Stern, Dean S. Instructor	Hinojosa, Jorge A. Instructor	Eisenberg, Brenda R. Associate Professor	Pilar, Prospero B. Assistant Professor
Storrs, Paul Assistant	Holinger, Lauren D. Associate Professor	Fassbender, Hans G. Visiting Professor	Pusch, Allen L. Associate Professor
Suh, Sang Instructor	Horwitz, Irwin D. Professor	Fresco, Raul Associate Professor	Rubenstone, Albert I. Professor
Sun, Te Ching Instructor	Horwitz, Steven D. Assistant Professor	Gibbons, Austin J. Associate	Sawyer, William H. Associate
Sundaram, Padma S. Assistant Professor	Hutchinson, James C. Associate Professor	Gibbons, William P. Instructor	Schajowicz, Fritz Distinguished Professor
Swarajyalakshmi, L. Instructor	Jensen, Thomas Assistant Professor	Goldin, Milton Associate Professor	Schenk, Robert K. Visiting Professor
Turner, Thomas M. Assistant Professor	Jones, Paul J. Assistant	Gould, Victor E. Professor	Schreiber, Solomon Assistant Professor
Von Rueden, Kurt Assistant	Karas, Ilias N. Instructor	Goyette, Richard E. Associate	Schwartz, Daniel Assistant
Vucicevic, Slobodan Instructor	Keyes, Geoffrey Instructor	Haber, Meryl Professor	Schwartz, Melvin M. Professor
Weinstein, James Instructor	Klodd, David A. Assistant Professor	Hass, George Emeritus Professor	Seim, Sandra K. Instructor
Willander, Duane A. Assistant Professor	Korzec, Kenneth R. Assistant	Heredia, Raul Assistant Professor	Shin, Sung S. Assistant
Wojcik, Edward Associate	Krause, Sue Ellen Assistant Professor	Hirsch, Alan R. Instructor	Shubik, Philippe Visiting Professor
Wolin, Preston M. Instructor	Nielsen, Thomas J. Assistant	Karpik, Alice G. Instructor	Snyder, Sheryl P. Assistant
OTOLARYNGOLOGY & BRONCHOESOPHAGOLOGY			
Aimi, Kenji Visiting Associate Professor	Ratusnik, David L. Associate Professor	Katz, Steven P. Instructor	Stefancik, Rudy W. Assistant
Allan, Joan Instructor	Razim, Edward A. Assistant Professor	Keane, John T. Assistant Professor	Stein, Robert Visiting Professor
Andrews, Jr., Albert H. Emeritus Professor	Rejowski, James E. Instructor	Kerpe, Stase Assistant Professor	Swedo, Gregory J. Assistant
Austin, David F. Associate Professor	Schewitz, Sheila Assistant Professor	Khodadad, Jena Assistant Professor	Templeton, Alexander Professor
Bacon, Mary Assistant Professor	Siegel, Gordon J. Instructor	King, Mary E. Assistant Professor	Thomas, Jr., William Associate Professor
Bailey, Larry L. Instructor	Soltes, Steven F. Instructor	Kuszak, Jerome R. Assistant Professor	Thomas, Anthony V. Assistant
Bartlett, Cynthia L. Assistant Professor	Stoioff, Madonna Instructor	Lange, Yvonne Professor	Trobaugh, Jr., Frank E. Professor
Block, Leslie J. Assistant Professor	Tenta, Louis T. Associate Professor	Lee, In Chul Assistant	Tsung, Jeffrey Associate
Bruce, David R. Instructor	Wallner, Linden J. Emeritus Professor	Lev, Maurice distinguished Professor	Warren, William H. Assistant
Buckingham, Richard Lecturer	Wang, Chang-Yang Assistant Professor	Loew, Jerome Assistant Professor	Weinstein, Ronald S. Professor
Bulger, Richard F. Instructor	PATHOLOGY		
Bunn, James E. Assistant	Ayer, John P. Emeritus Professor	Marikovsky, Yehuda Visiting Professor	Weinstock, Albert Assistant Professor
Caldarelli, David D. Professor Chairperson	Bailey, Orville T. Distinguished Professor	Marshall III, Roland M. Assistant	Wiley, Elizabeth Assistant Professor
Campanella, Ruth S. Assistant Professor	Banner, Barbara Assistant Professor	Marshall, Paul N. Assistant Professor	PEDIATRIC
	Barrett, David Associate	Mason, John W. Associate Professor	NURSING
	Bloom, Kenneth J. Assistant	McQuay, Russell M. Associate Professor	Acord, Lea G. Associate
	Bolanos, Jose M. Assistant Professor	Miller, Alexander W. Associate Professor	Barry, Patricia M. Instructor
			Brundage, Joan Associate

Faculty Departmental List

Cahill, Maureen Instructor	Babakitis, Mary R. Associate	Chen, Jackson W. Instructor	Franczyk, Elizabeth Assistant
Cannon, Ann Instructor	Baig, Suraiya F. Assistant	Ching, Quimbo Assistant	Frank, Minnie Assistant Professor
Cestaro-Seifer, D. Instructor	Balagtas, Rolando C. Assistant Professor	Chisholm, Paul S. Assistant Professor	Freed, Marc A. Assistant
Donnally, Debra Instructor	Bassuk, Angel B. Assistant Professor	Christian, Joseph R. Professor	Frey, Michael J. Instructor
Ely, Beth Ann Instructor	Batchu, Koteswara R. Instructor	Chudwin, David S. Assistant Professor	Freyer, David R. Assistant
Hornick, Renata Instructor	Belingon, Ceilo C. Assistant	Clark, Valeria F. Instructor	Gallo, Linda Assistant
Kennelly, Christine Assistant Professor	Belkengren, Richard Assistant Professor	Cook, Suzanne R. Instructor	Gamburg, Boris Instructor
Maikler, Virginia Assistant Professor	Bellosa, Nora T. Instructor	Cortez-Lapera, Myrna Assistant	Ganz, Mary Assistant
McDonnell, Ann Marie Instructor	Beverly, Bert I. Assistant Professor	Crawford, Jr., John Assistant	Gardner, H. Rex Assistant Professor
McEachron, Patricia Instructor	Bharani, Sakina Assistant Professor	Cupeles, Angela B. Assistant Professor	Garla, Renukadevi P. Instructor
McNally, Rhonda Instructor	Bharati, Saroja Associate Professor	Czerniejewski, Richard Assistant Professor	Gavani, Uma D. Assistant Professor
Norris-Berkemeyer, S. Instructor	Biary, Maha S. Assistant	Dammers, Warren R. Lecturer	Gaye-Korenblit, Annick Instructor
Orth, Mary Associate	Bidani, Anil Assistant Professor	Damptz, Robert E. Instructor	Gewurz, Anita Assistant Professor
Pabst, Mary Instructor	Bigger, Harold Assistant Professor	Day, Donald W. Visiting Assistant	Gewurz, Henry Professor
Pierce, Eileen Assistant Professor	Billow, Michael A. Assistant	Professor	Gibson, Lewis E. Professor
Pugh, Elizabeth Associate Professor	Blair, John N. Instructor	De Stefano, Michael D. Instructor	Ginda, Sunita J. Instructor
Associate Chairperson	Bossano, J. Manuel Assistant	Dekker, Anthony Lecturer	Goel, Neelam Instructor
Sorrells-Jones, Jean Assistant Professor	Bozynski, Mary Ellen Assistant Professor	Delach, Anthony C. Instructor	Goldberg, Hilda R. Visiting Assistant
Chairperson	Braun, Leonard L. Assistant Professor	Delaconcha, Jose Instructor	Professor
Strachan, Kathleen Instructor	Brazley, Marsha J. Instructor	Desai, Renuka Instructor	Goldman, Gilbert M. Assistant Professor
Thomas, Jean Instructor	Brocken, Cecilia Associate Professor	Diamond, Eugene F. Visiting Professor	Goodman, Harold Assistant Professor
Thompson, Pamela Associate	Bucheleres, Gunther H. Professor	Dochios, Mary Assistant Professor	Greenberg, Mark L. Assistant
Trufant, Judy Assistant Professor	Buentello, Gloria N. Instructor	Doshi, Mukesh Instructor	Grossman, Aaron Professor
Walsh, Michelle Assistant Professor	Butler, Craig D. Emeritus Professor	Driscoll, Thomas P. Assistant Professor	Gruska, Mary Ellen Instructor
	Cacas, Eduardo C. Assistant	Duda, Francis J. Assistant Professor	Guerrero-Tiro, Lourdes Assistant Professor
	Camacho, Felicitas C. Instructor	Dumbovic, Nives Assistant Professor	Hahn, Kyung O. Instructor
	Campbell, Michael J. Assistant Professor	Dy, Deana L. Instructor	Harris, George F. Instructor
	Cantez, Talat Associate Professor	Egel, Robert T. Assistant Professor	Hatzivasiliadis, A. Assistant
	Cantorna, Bernard Assistant Professor	El-Ali, Maad Instructor	Heil, Nancy Jo Instructor
	Carr, Ian R. Associate	El-Diwany, Seham F. Assistant	Henikoff, Leo M. Professor
	Carr, Janet Instructor	Elam, Harry P. Professor	Hutchinson, Janice Instructor
	Celewycz, Bohdan S. Associate	Embar, Rama Instructor	Hyde, John S. Professor
	Chande, Sumitra Instructor	Eriksen, Ronald G. Instructor	Imandoust, Mohammad Assistant
	Chang, Timothy C. Assistant Professor	Fink, Peter Assistant Professor	Israel, Jeannette Visiting Instructor
	Chaudhary, Mohammad Assistant Professor	Floro, Lourdes D. Assistant Professor	Ivey, Carl L. Assistant Professor
			Jaimovich, David Assistant

Javid, Yaminali M.	Limp, Charles	Oktener, Mine O.	Sella, Michael Z.
Assistant	Assistant Professor	Assistant	Assistant Professor
Johnson, Frank R.	Lin, Sun Kuang	Pachman, Daniel J.	Serrato-Benvenuto, M.
Associate Professor	Instructor	Professor	Associate
Jones, Jr., Clay H.	Loghman-Adham, M.	Page-El, Edward	Shah, Ila A.
Associate Professor	Assistant Professor	Assistant Professor	Instructor
Jordan, Robert A.	London, Ruth	Paller, Amy S.	Sharma, Annu G.
Instructor	Assistant Professor	Assistant Professor	Assistant
Jung, Eduard	Lorber, Rudy	Paris, Angelo	Sheldon, Stephen H.
Associate Professor	Assistant Professor	Assistant	Assistant Professor
Kaizer, Herbert	Luken, Julie A.	Patel, V. K.	Shivde, Pinakini S.
Associate Professor	Associate	Instructor	Instructor
Kakodkar, Vasundhara	Lukens, Abbie R.	Paul, S. Daman	Shmigelsky, Irene
Instructor	Assistant Professor	Assistant Professor	Emeritus Assistant
Kaliana, Muthukumaran	Luong, Ho N.	Pierce, Mila I.	Professor
Assistant Professor	Assistant	Distinguished Professor	
Kallick, Charles	Manaligod, Librada J.	Podorovsky, Lev	Shorr, Gail J.
Associate Professor	Assistant Professor	Assistant	Assistant Professor
Kaltman, Jerome	Mandel, Elias	Ponnuru, Lalitha S.	Shrock, Peter
Assistant Professor	Associate	Assistant	Assistant Professor
Kang, David S.	Mariyappa, M. P.	Proteau, Roseanne V.	Siddiqi, Raffat A.
Associate Professor	Assistant Professor	Assistant Professor	Assistant
Katele, Elvira	Mead, John D.	Puc, Frank C.	Singh, Rama S.
Member	Assistant Professor	Assistant Professor	Assistant Professor
Kaye, Celia	Meier, Werner	Radfar, Baroukh	Sivarajan, Thenmathi
Visiting Associate	Associate Professor	Assistant Professor	Instructor
Professor			
Kazlauska, Theresa	Melyn, Michelle	Ragab, Medhat M.	Skarpathiotis, G.
Instructor	Assistant Professor	Assistant	Assistant
Keith, L. Eugene	Mercer, Jeanne K.	Ramana, Pabbisetty V.	Smith, Joyce M.
Associate Professor	Assistant Professor	Instructor	Instructor
Kendrick, Alfred E.	Mets, Marilyn	Rao, Sripathy	Spaeth, Ralph
Assistant Professor	Instructor	Associate	Emeritus Professor
Khan, Nikhat S.	Miller, Howard R.	Ratajik, Alyda R.	Staissz-Baczek, Maria
Assistant	Assistant Professor	Assistant Professor	Instructor
Khurana, C. Mohini	Miller, Robert A.	Rathi, Manohar L.	Stamat, Nicholas
Assistant Professor	Visiting Professor	Associate Professor	Assistant
Khurana, Saroj	Mina, Afifa	Ray, Ishani	Starsiak, Diane L.
Instructor	Assistant	Assistant	Instructor
Kijek, Barbara G.	Mindlin, Rowland L.	Raycraft, William B.	Stearns, Amy E.
Assistant	Visiting Professor	Emeritus Professor	Assistant Professor
Kiley, R. James	Mini, James A.	Reddi, Cattamanchi	Stine, Robert H.
Assistant Professor	Assistant Professor	Instructor	Associate
Kim, Ju Hyun	Mok, Young He	Reddi, K. T.	Strokosch, Gary R.
Instructor	Instructor	Assistant Professor	Assistant Professor
Kindrachuk, William	Mueller, Paul L.	Reddy, Jyothi J.	Strzembosz, Patricia
Assistant Professor	Assistant Professor	Assistant Professor	Instructor
Kintanar, Felismeno	Muenster, Joseph J.	Rinaldi, David	Sulayman, Rabi F.
Instructor	Associate Professor	Instructor	Associate Professor
Kirrin, Alex J.	Mykytiuk, Larysa	Rojas, Manuel O.	Suliaman, Fawzi
Instructor	Assistant	Instructor	Instructor
Klodd, David A.	Nagel, Harry T.	Rosenthal, Ira M.	Sundaram, Padma S.
Assistant Professor	Instructor	Professor	Assistant Professor
Koinis, Kostas E.	Naidu, Vasantha	Saleh, Nabil M.	Swarts, Charles L.
Associate	Instructor	Instructor	Associate Professor
Korenblit, Allen	Narayan, M. S. Laxmi	Salta, Raul	Taylor, Luis G.
Assistant Professor	Assistant Professor	Instructor	Assistant
Kornhauser, Michael	Nathan, John E.	Salvi, Sharad	Teji, Jagjit S.
Assistant	Visiting Assistant	Instructor	Assistant
Lamprecht, Catherine	Needelman, Howard W.	Sanchez, Jerry	Tiruvury, Anuradha
Assistant Professor	Assistant Professor	Instructor	Assistant Professor
Lev, Maurice	Nelson, Karen B.	Santucci, Barbara	Torres, Heriberto
Distinguished Professor	Assistant Professor	Associate Professor	Assistant
Levy, Howard B.	Nelson, Michael N.	Savage, Judith G.	Trautenberg, Joel
Associate Professor	Assistant Professor	Instructor	Assistant
Levy, Jerre	Nisengolts, Meer	Sawlanli, Omprakash	Tunestam, Nils J.
Visiting Associate	Assistant	Instructor	Assistant Professor
Professor			
Lim, Diodesado	Noronha, Peter	Sayana, Vijaya	Upadhyay, Nandini
Visiting Associate	Assistant Professor	Assistant Professor	Assistant
Professor			
	O'Cherony, Domingo	Seker, Jr., Shanti J.	Upadhyaya, Vinod P.
	Instructor	Assistant Professor	Instructor

Van Valin II, William

Assistant
Varadhi, Arundhathy

Assistant
Vasan, Ushanalini

Assistant Professor
Velada, Pedro I.

Associate
Vellody, Kunhunni

Instructor
Vercoe, James L.

Assistant Professor
Wai, William Y.

Instructor
Wallin, Paul E.

Instructor
Wanczyk, Teresa

Assistant
Wang, Kuo-Fuh

Instructor
Waskerwitz, Steven

Assistant Professor
Weiss, Gerald E.

Instructor
Weiss, Mark S.

Instructor
White, Donald R.

Instructor
Wirtshafer, Robert

Assistant Professor
Wong, Paul W.

Professor
Yu, Evelyn

Assistant
Zapata, Patricia

Assistant
Zarrabi, Jalil

Assistant Professor
Zervopoulos, Evangelia

Instructor
Zuckerman, Victor

Assistant
PHARMACOLOGY

Ahmad, Tanveer
Assistant Professor
Barkin, Robert

Instructor
Boyd, Eugene

Instructor
***Carson, Paul E.**

Professor
Chairperson
Carvey, Paul

Assistant Professor
***Ebersman, Donaíd S.**

Professor
***Ecanow, Bernard**

Visiting Professor
***Fischer, Henri**

Professor
Gdalman, Louis

Emeritus Professor
Goetz, Christopher

Assistant Professor
Hanson, Wayne R.

Assistant Professor
Javaid, Javaid I.

Assistant Professor
***Klawans, Harold**

Professor
MacLeod, Catherine M.

Assistant Professor
McCarthy, Robert J.

Instructor
McKenna, Rajalaxmi

Associate Professor
Moon, Byong

Associate Professor
Nootens, Raymond H.

Assistant Professor
***Nora, Maris V.**

Assistant Professor
O'Donnell, James

Assistant Professor
***Parkhurst, George W.**

Assistant Professor
***Prancan, Arthur**

Assistant Professor
Rieckmann, Karl H. W.

Visiting Professor
Thomas, John A.

Lecturer
Thomas, Russel W.

Instructor
***Trenholme, Gordon M.**

Associate Professor
PHYSIOLOGY

Agarwal, Gyan C.
Visiting Professor
Anderson, Jr., Robert A.

Associate Professor
Barclon, Victor

Visiting Professor
Braverman, Berton

Assistant Professor
Brueschke, Erich

Professor
Cohen, Fredric

Assistant Professor
***Donaldson, Sue**

Associate Professor
Eisenberg, Brenda R.

Professor
***Eisenberg, Robert**

Professor
Chairperson
Giuffre, Verlin W.

Instructor
Gottlieb, Gerald L.

Professor
***Hegyvary, Csaba**

Associate Professor
***Hoepner, Thomas J.**

Assistant Professor
Kroin, Jeffrey S.

Assistant Professor
Larramendi, Paloma

Instructor
Levis, Richard A.

Assistant Professor
***Mathias, Richard T.**

Associate Professor
McCarthy, Richard

Instructor
***Michael, Joel A.**

Associate Professor
***Nelson, Deborah J.**

Assistant Professor
Perlman, Robert

Visiting Professor
Rae, James L.

Professor
Rios, Eduardo

Assistant Professor
***Rovick, Allen**

Professor
***Schauf, Charles**

Professor
Smith, Kenneth

Assistant Professor
***Zimmerman, Roger P.**

Assistant Professor
PLASTIC & RECONSTRUCTIVE SURGERY

Aduss, Howard
Professor
Azouz, David

Instructor
Bradley, Craig

Assistant Professor
Curtin, John W.

Professor
Chairperson
Dean, Robert K.

Instructor
Derman, Gordon H.

Assistant Professor
Gold, Henry O.

Associate
Greeley, Paul W.

Emeritus Professor
Kurth, Milton E.

Assistant Professor
Leake, James E.

Instructor
McNally, Randall E.

Associate Professor
Miller, Daniel S.

Instructor
Monroe, Clarence W.

Emeritus Professor
Reisberg, David J.

Associate
Robrock, James L.

Assistant
Schenck, Robert R.

Associate Professor
Seetapun, Anun

Instructor
Shah, Rajendra M.

Instructor
Sperling, Richard L.

Associate
Weinrib, Harry P.

Instructor
PREVENTIVE MEDICINE

Betz, Eleanor
Instructor
Dolecek, Therese

Assistant Professor
Dwarakanathan, Arcot

Assistant Professor
Eckenfels, Edward J.

Associate Professor
Elam, Harry P.

Associate Professor
Exum, Dolores

Associate
Gale, Meryl L.

Instructor
Grouse, Lawrence D.

Associate
Hahn, Jerome

Associate Professor
Hall, Yolanda F.

Assistant Professor
Harris, Alan A.

Associate Professor
Hudson, Edsel K.

Associate Professor
Johnston, Louis C.

Associate Professor
Jones, Jr., Clay H.

Associate Professor
Kallick, Charles

Associate Professor
Kassriel, Robert S.

Assistant Professor
Klinger, Alfred D.

Associate
Lepper, Mark H.

Professor
Levin, Stuart

Associate Professor
Levine, Charlotte C.

Assistant Professor
Levine, Milton D.

Professor
Liebson, Philip R.

Associate Professor
Madden, Thomas

Associate Professor
McCreary, Patricia A.

Associate Professor
Meyer, John H.

Associate
Mindlin, Rowland L.

Visiting Professor
Moore, Jean M.

Instructor
Nelson, Karen B.

Assistant Professor
Neri, Jr., Gilberto S.

Assistant Professor
Norusis, Marija

Associate Professor
Payne, Joseph

Assistant Professor
Pomerantz, Rhoda S.

Assistant Professor
Post, John

Emeritus Assistant
Professor
Proteau, Roseanne V.

Assistant Professor
Schoenberger, James A.

Professor
Chairperson
Schoenberger, Joseph

Assistant Professor
Sheldon, Stephen H.

Assistant Professor
Shott, Susan

Assistant Professor
Spies, Harold W.

Associate Professor
Sunseri, Albert J.

Associate
164

Turner, Irene R. Assistant Professor	Baer, Richard K. Instructor	Ericksen, Stephen E. Assistant Professor	Leff, Joel R. Instructor
PSYCHIATRIC NURSING	Bagri, Sushil Assistant Professor	Fawcett, Jan A. Professor	Levitt, Leroy Professor
Anderson, Nancy Instructor	Basch, Michael Professor	Chairperson	Libert, Samuel A. Associate
Anderson, Susan Associate	Beedle, Dennis Assistant	Feldmann, Theodore B. Instructor	Lofgren, Katharine A. Assistant Professor
Babich, Karen S. Associate Professor Chairperson	Benezra, Eliot E. Assistant Professor	Fink, Peter Assistant Professor	Malen, David G. Assistant
Barrell, Lorna M. Associate	Benson, David Assistant Professor	Finkelstein, Adrian Assistant Professor	Mangoubi, Elie Instructor
Carlson-Sabelli, L. Assistant Professor	Berendi, Sandor Assistant Professor	Garvin, John S. Professor	Markos, Mathew S. Assistant
Carr, Ginger Instructor	Berger, Jack C. Assistant Professor	Gerty, Francis J. Emeritus Professor	Marohn, Richard Associate Professor
Christman, Luther Professor	Bloom, Robert W. Assistant	Gierl, Benedict L. Instructor	Martinazzo-Dunn, Anna Instructor
Cook, Kathryn Assistant Professor	Braun, Bennett Instructor	Gokhale, Sudhir M. Instructor	Maxwell, Sarz Assistant
Duda, David Instructor	Brueckner, David A. Assistant Professor	Golchin Shafa, Mehdi Associate	Meehan, Marjorie C. Emeritus Assistant Professor
Ellis, Nancy Instructor	Buch, Piyush C. Instructor	Goldberg, Arnold I. Professor	Mehlinger-Mitchell, R. Assistant
Fiske, Marian Assistant Professor Assistant Chairperson	Buck, David W. Assistant Professor	Guise, Gracia Assistant Professor	Meiszner, John W. Instructor
Hasse, Mary Instructor	Burstein, Stuart Assistant Professor	Gutmann, Cheryl M. Instructor	Mershon, Steven Assistant
Kopytko, Edwin E. Instructor	Busch, Katie Assistant Professor	Gwyer, Fred V. Assistant Professor	Miller, Raymond N. Associate
Long, Lorraine Instructor	Cann, Stephen R. Instructor	Ha, Yong Soo Instructor	Moolayil, Kumar D. Instructor
Lusk, Peggy Assistant Professor	Carlock, William D. Instructor	Halper, Ira S. Assistant Professor	Morrison, David Assistant Professor
Lynch, Priscilla Instructor	Cavanaugh, Jr., James Associate Professor	Hanni, John W. Professor	Nelson, Karen L. Assistant
O'Connor, Fredricka Assistant Professor	Cavanaugh, Stephanie Associate Professor	Harbour, Jeanne D. Assistant Professor	Norton, Arthur H. Associate Professor
Roeber, Charlotte Instructor	Charles, Andrew V. Instructor	Hartman, Edith Instructor	O'Donnell, John W. Associate
Sivesind, Debra Instructor	Childress, Barry Assistant Professor	Hegyvary, Csaba Assistant	Orloff, Mollie Associate Professor
Snyder, Marsha Assistant Professor	Chor, Philip N. Assistant Professor	Heidelberger, Cheryl Assistant	Ostrov, Eric Assistant Professor
Stevens, Marietta Instructor	Christopoulos, Angelos Assistant Professor	Hendler, Samuel Assistant Professor	Patel, Minaldevi Assistant Professor
Szczesny, Sue Instructor	Clark, David C. Assistant Professor	Holinger, Paul C. Assistant Professor	Patterson, Joan E. Assistant Professor
Ulsamer-Van Lanen, Jane Assistant Professor Associate Chairperson	Cooperman, Suzanne K. Assistant Professor	Hovde, Christian Assistant Professor	Paul, Howard S. Assistant Professor
Van Byssum, Doris Instructor	Corbett, Lionel Assistant Professor	Hurd, Julie L. Assistant	Perakis, Emmanuel A. Assistant
PSYCHIATRY	Dampitz, Robert E. Assistant Professor	Ivanoff, Jeffrey A. Assistant Professor	Perkins, George L. Assistant Professor
Aagesen, Carl Assistant Professor	David, Paul P. Assistant Professor	Jackson, Jeffrey A. Assistant	Pieper, William J. Assistant Professor
Ahluwalia, Kumar Y. Assistant Professor	De Sa Pereira, E. Assistant Professor	Jones, Frank A. D. Assistant Professor	Pisani, Vincent D. Assistant Professor
Amdur, Mark Assistant Professor	Dederick, Margarida M. Assistant Professor	Katz, Jerome I. Assistant Professor	Pollock, George H. Lecturer
Anderson, David R. Assistant Professor	Del Campo, Jose A. Assistant Professor	Kelly, Jonathan Assistant Professor	Prosen, Melvin Associate Professor
Andriacchi, Julia H. Assistant	Dubner, Harold H. Assistant Professor	Klein, Louis D. Assistant	Rattan, Pradeep Instructor
Armstrong, Claresa Assistant Professor	Ebenhoeh, Patrick E. Assistant Professor	Kraines, Samuel H. Assistant Professor	Reddy, Kurapati B. Assistant Professor
Arons, Martin Assistant Professor	Edwards, John H. Assistant	Kravitz, Howard Assistant Professor	Reifman, Robert A. Assistant Professor
	Epstein, Phillip S. Assistant Professor	Lane, Harold J. Instructor	Reinstein, Michael J. Assistant Professor
		Lazarus, Lawrence W. Assistant Professor	

Faculty Departmental List

Ripeckyj, Andrew	West, James W.	Frey, Michael J.	Snyder, Darrell
Assistant Professor	Assistant Professor	Instructor	Assistant Professor
Rodriquez, Jack V.	Westheimer, Ruth	*Garron, David C.	*Stearns, Amy E.
Assistant	Assistant Professor	Professor	Assistant Professor
Rogers, Richard	Wettstein, Robert	*Guise, Gracia	Stephens, Alice E.
Assistant Professor	Assistant Professor	Assistant Professor	Assistant Professor
Rosenthal, Maurice J.	Wolf, Marion E.	*Hegvany, Sue	Swimmer, Glenn
Assistant Professor	Assistant Professor	Associate Professor	Assistant
Rosenthal, Ruth B.	Wolff, John R.	Hotch, Deborah	Tellis-Nayak, V.
Instructor	Professor	Assistant Professor	Visiting Associate
Rubin, Ronald G.	Wright, Donovan G.	Houser, Henry P.	Professor
Assistant	Emeritus Professor	Professor	Walco, Gary A.
Sabelli, Hector C.	Yballe, Sonia B.	Jacobs, Sharon B.	Assistant
Assistant Professor	Assistant Professor	Assistant	Wasyliw, Orest
Samelson, Charles F.	Young, Michael	*Johnson, Marilyn A.	Assistant Professor
Assistant Professor	Assistant Professor	Assistant Professor	Watson, Laura H.
Sanchez, Jose Ramon	Younger, Susan C.	Johnson, Paul	Instructor
Assistant Professor	Assistant	Assistant Professor	*Wilson, Robert S.
Schaff, Mary R.	Zadylak, Robert G.	Kravitz, Howard	Assistant Professor
Assistant	Assistant Professor	Assistant Professor	Young, Michael
Scheftner, William A.	Zajecka, John M.	*Leavitt, Frank	Assistant Professor
Assistant Professor	Assistant	Lillie, Jamie K.	Youngjohn, James
Schwarz, Marvin	Zakko, Hazim Y.	Linsky, Miles A.	Assistant
Assistant Professor	Assistant Professor	Lloyd, Stephen R.	Zeldow, Peter
Shvartsman, Leonid	PSYCHOLOGY & SOCIAL SCIENCES		Assistant Professor
Instructor	Alexakis, Yianoula	Lofgren, Katharine A.	Zitter, Robert E.
Smith, Garth D.	Instructor	Lopez, Martita	Zusman, Martin
Assistant Professor	*Anderson, David R.	Assistant Professor	Visiting Associate
Sokhey, B. J.	Assistant Professor	Lorber, Rudy	Professor
Associate	Andrews, Susan B.	Lufrano, Anne L.	
Sommerfeldt, Lorraine	Bacon, Lynd	Assistant Professor	
Assistant	Assistant Professor	Martin, Eileen M.	
St. Clair, Doris E.	Barton, John L.	Assistant Professor	
Instructor	Assistant	McNamara, Barry T.	
Stampley, Jan O.	*Bieliauskas, Linas	Mead, John D.	
Instructor	Associate Professor	Assistant Professor	
Steed, W. David	*Billingham, Katherine	Meyer, Barbara	
Associate Professor	Assistant Professor	Assistant Professor	
Stein, Edward	Blumberg, Phyllis	Miller, Robert B.	
Assistant Professor	Assistant Professor	Moncrieff, Ellsworth H.	
Strozier, Charles P.	Brenner, Lisa P.	Associate	
Visiting Assistant	Assistant Professor	*Nelson, Michael N.	
Professor	*Brocken, Cecilia	Assistant Professor	
Sytsma, John	*Cartwright, Rosalind D.	Ostrov, Eric	
Associate	Professor	Assistant Professor	
Thampy, Kishore J.	Chairperson	Padonu, Georgia	
Assistant Professor	*Cheifetz, David I.	Assistant Professor	
Thompson, Dennis S.	Professor	Padonu, Georgia	
Instructor	Christman, Luther	Assistant Professor	
Tilkin, Jeffrey M.	Clark, David C.	Pahel, Kenneth R.	
Assistant Professor	Assistant Professor	Associate Professor	
Trager, Eugene P.	Como, Peter G.	*Pahel, Kenneth R.	
Assistant Professor	Assistant	Associate Professor	
Trakas, Demetrius A.	Counte, Michael	*Pahel, Kenneth R.	
Assistant Professor	Associate Professor	Associate Professor	
Trujillo-Gomez, Jamie	Daugherty, Steven R.	*Pahel, Kenneth R.	
Assistant Professor	Instructor	Associate Professor	
Vazquez, Juan J.	Dawkins, Marva	*Pahel, Kenneth R.	
Assistant Professor	Assistant Professor	Associate Professor	
Vivar, Zenaida	de Toledo-Morrell, L.	*Pahel, Kenneth R.	
Instructor	Associate Professor	Associate Professor	
Voltolina, Eugene J.	Eastman, Charmane	*Pahel, Kenneth R.	
Instructor	Assistant Professor	Associate Professor	
Waldman, Maurice	Exum, Dolores	*Pahel, Kenneth R.	
Assistant Professor	Associate	Associate Professor	
Wasyliw, Orest	*Feldman, Howard S.	*Pahel, Kenneth R.	
Assistant Professor	Assistant Professor	Associate Professor	
Watson, Laura H.		*Pahel, Kenneth R.	
Instructor		Associate Professor	
Weiner, Barbara		*Pahel, Kenneth R.	
Assistant Professor		Associate Professor	

RELATED HEALTH PROGRAMS

Allan, Joan	Instructor
Anderson, Karen A.	Instructor
Armstrong, Michael K.	Assistant Professor
Atkins, Martha F.	Instructor
Bacon, Mary	Associate Professor
Barrett, Jean E.	Instructor
Barry, Diana	Instructor
Bartlett, Cynthia L.	Assistant Professor
Beckerman, Andrea G.	Instructor
Bell, Virginia	Instructor
Benjamin, Sharon	Lecturer
Berlow, Susan J.	Associate
Bezkorovainy, Anatoly	Associate Professor
Bishop, Catherine L.	Instructor
Brady, Catherine	Instructor
Brandt-Guckles, Deborah	Instructor
Castellanos, Mary	Assistant Professor
Chapman, Kristine A.	Instructor
Chung-Bin, Anthony	Associate Professor

Connelly, Robert Associate	Lanzl, Lawrence Professor	Stumpe, Marjorie Associate Professor	Cladek, Lydia Associate
Demidow, Ludmilla Instructor	Lee, Myung-Sook Associate Professor	Tangney, Christine Assistant Professor	Clark, Constance M. Instructor
Derman, Sheila K. Associate	Maczulski, Jo Ann Instructor	Taylor, Kathleen M. Instructor	Clemmings, Linda Assistant Professor
Detweiler, Glenn L. Instructor	Maedel, Lynn Assistant Professor	Van Hoorebeke, Kala Instructor	Coren, Debra A. Instructor
Dolecek, Therese Assistant Professor	Maimonis, Laurie C. Instructor	Viernes, Ann L. Instructor	Daniel, Evelyn Associate
Dowling, Rebecca Assistant Professor	Mansfield, Margo Assistant Professor	Wachtor, Thomas E. Assistant Professor	Dauro-Jokich, Cheryl Instructor
Druker, Robert Associate	Melnick, Carol R. Associate	Walasek, Joan A. Instructor	Dollens, Carol Instructor
Edwards, Bruce Associate	Milianti, Franklin Associate	Walens, Debbie Instructor	Duffy, Catherine Associate
Farag, Wadia Instructor	Miller, Herb Associate Professor	Weddle, Dian Assistant Professor	Firlit, Sharon Assistant Professor
Fekete, Agnes E. Assistant Professor	Mitchell, Sheila Instructor	Weissberger, Lynne E. Assistant Professor	Fortin, Susan Instructor
Gewurz, Anita Assistant Professor	Milcoch, Anthony G. Associate	Whisler, Kenneth E. Assistant Professor	Genge, Marianne Instructor
Giangrasso, Michele Instructor	Murthy, Anantha K. Associate Professor	Williams, Denise E. Lecturer	Gohla, Margaret M. Instructor
Goodmundson, Gail Associate	Neidich, Robin D. Associate	Wolgemuth, Christine L. Instructor	Goodman, Michelle Assistant Professor
Gvazdinskas, Loretta C. Instructor	Nichols, Dickronouhi Instructor	Yoshizawa, Ellen H. Instructor	Gottschalk, William Professor
Hanson, Wayne R. Assistant Professor	Novak, Elaine Instructor	Young, Carolyn Associate	Haggerty, Linda Instructor
Hassel, Maria Instructor	O'Brien, Roberta J. Instructor	RELIGION AND HEALTH	Holmes, Aline Associate
Hawkins, Judy Instructor	Olson, Linda G. Lecturer	Burbank, Barbara B. Instructor	Huang, Jo Ann Instructor
Hendrickson, Frank R. Professor	Opacich, Karin J. Assistant Professor	Burck, Russell Assistant Professor	Jankowski, Mary Ellen Associate
Hill, David Associate	Patterson, Robert Instructor	Corrigan, James V. Assistant Professor	Keithley, Joyce Associate Professor
Hill, Linda C. Associate	Pierleoni, Robert G. Professor	Fitchett, George Associate Professor	Kemp, Mildred G. Assistant Professor
Ho, Li O. Instructor	Pinney, E. Virginia Assistant Professor	Hovde, Christian Associate Professor	Lanigan, Kathleen Instructor
Hoyt, Jeanette Instructor	Ratusnik, David L. Professor	Mervis, Leonard J. Assistant Professor	Lauder, Winifred Instructor
Hubbard, Lincoln Associate	Rayudu, Garimella V. Associate Professor	O'Reilly, Jo Ann Instructor	Lawler, Patricia E. Instructor
Hughes, Cynthia J. Associate Professor	Roth, Mary B. Instructor	Temming, M. Carole Assistant Professor	Littleton, Marguerite Assistant Professor
Hullings-Kalina, Judy Associate	Rozenfeld, Martin Associate Professor	Wagner, William A. Assistant Professor	Llewellyn, Jane Associate Professor
Jayaraman, Subramania Assistant Professor	Schewitz, Sheila Associate Professor	SURGICAL NURSING	Assistant Chairperson
Jette, David Assistant Professor	Schroder-Kearns, C. Instructor	Alfredson, Janet Instructor	Matz, Stephen Instructor
Kaplan, Raymond L. Assistant Professor	Short, John J. Instructor	Andrews, Diane R. Instructor	McCaughey, Marcia Associate
Kartha, Ponnunni K. I. Associate Professor	Shover, James D. Instructor	Appenheimer, Linda Assistant Professor	Mendelson, Lisa S. Instructor
Klodd, David A. Associate Professor	Siegel, Joan Assistant Professor	Bremer, Catherine Associate	Miller, Deborah J. Instructor
Klor, Barry M. Associate	Soenksen, Patricia A. Associate	Brozenec, Sally Assistant Professor	Morreale, Barbara Instructor
Kominsky, Perrie Associate	Sood, Naresh Lecturer	Burn, Elizabeth Associate	Moss, Patricia Instructor
Krause, Sue Ellen Assistant Professor	Sowa, Diane Instructor	Burns, Carol Instructor	Nachich-Scheid, Tina Instructor
Krueger, Charlotte Assistant Professor	Stallings, Susan Assistant Professor	Casini, Donna Assistant Professor	Nelson, Joan Instructor
Landay, Alan Assistant Professor	Stoifoff, Madonna Assistant Professor		Paice, Judith Instructor

Faculty Departmental List

Pairitz, Donna
 Instructor
Parker, Stephanie
 Associate
Patras, Angie
 Assistant Professor
Penckofer, Sue
 Instructor
Podjasek, Jill
 Instructor
Poulson, Elizabeth
 Instructor
Raymond, Mary A.
 Instructor
Riff, Alison
 Instructor
Rovtar, Julie
 Instructor
Savoy, Suzanne
 Instructor
Schillo, Richard
 Instructor
Shader, Noreen
 Instructor
Shannon, Carol
 Associate
Sigardson, Katherine
 Instructor
Slack, Jeanne
 Instructor
Smith, Connie
 Instructor
Stoops, Joyce
 Associate
Tarnow, Jane
 Assistant Professor
Thomas, Charlene
 Instructor
Tyszka, Margaret
 Instructor
Urbanski, Pam
 Instructor
Voluz, Joan
 Instructor
Walsh, Marian
 Instructor
Whitmore, Elizabeth
 Instructor
Williamson, Patricia
 Instructor

THERAPEUTIC
RADIOLOGY
Awan, Azhar M.
 Assistant

Chung-Bin, Anthony
 Associate Professor
Gagnon, James D.
 Assistant Professor
Grdina, David J.
 Visiting Associate
 Professor
Hanson, Wayne R.
 Assistant Professor
Hendrickson, Frank R.
 Professor
 Chairperson
Hill, Colin
 Instructor
Jette, David
 Assistant Professor
Kao, Mark
 Assistant Professor
Kartha, Ponnunni K. I.
 Associate Professor
Kedziora, Guy
 Assistant
Khosla, Subhash
 Assistant
Kiel, Krystyna D.
 Assistant Professor
Kooser, Judith A.
 Assistant
Kramer, Toby
 Assistant Professor
Krishnasamy, S.
 Assistant
Kurup, Parvathy
 Instructor
Lanzl, Lawrence
 Professor
Lee, Ham Nyung
 Assistant Professor
Lee, Myung-Sook
 Associate Professor
Liu, Shin S.
 Assistant Professor
Murthy, Anantha K.
 Associate Professor
Phillips, Alexander K.
 Assistant
Phillips, Richard L.
 Visiting Associate
 Professor
Rao, A. R.
 Assistant
Reddy, Salitha
 Assistant Professor

Rozenfeld, Martin
 Associate Professor
Sarin, Pramilla
 Assistant Professor
Saroja, Kurubarahalli
 Assistant
Saxena, Virenda S.
 Professor
Schabinger, Paul
 Instructor
Stefani, Stefano S.
 Professor
Wachtor, Thomas E.
 Assistant Professor

UROLOGY
Babanoury, Agha B.
 Assistant Professor
Baumgartner, George C.
 Assistant Professor
Borkovec, Kent F.
 Associate
Bormes, Thomas P.
 Assistant
Buckun, George R.
 Associate
Burkholder, Theodore
 Member
Callahan, Daniel H.
 Associate Professor
Cottrell, Jr., Thomas L.
 Instructor
Cottrell, Thomas L. C.
 Visiting Assistant
 Professor
Curl, George G.
 Assistant Professor
De Marco, Carl J.
 Instructor
Eghrari, Faramarz
 Instructor
Ekbal, Shahid S.
 Assistant Professor
Evans, Thomas A.
 Assistant Professor
Firlit, Robert
 Instructor
Flanagan, Malachi J.
 Professor
Gernon, John T.
 Member
Gersack, John R.
 Associate

Graf, Edwin C.
 Professor
Guinan, Patrick
 Visiting Assistant
 Professor
Haeger, R. Ross
 Associate Professor
Hoeksema, Jerome
 Assistant Professor
Hoyme, Kermit
 Instructor
Jimenez, Luis A.
 Assistant
Kovacs, Joseph
 Assistant Professor
Lief, Matthew S.
 Assistant
Lipschitz, Sam
 Instructor
McKiel, Jr., Charles
 Professor
 Chairperson
Merricks, James W.
 Emeritus Professor
Papierniak, Frank B.
 Associate Professor
Pessis, Dennis A.
 Assistant Professor
Rooney, Peter
 Instructor
Rubenstein, Marvin
 Assistant
Sadoughi, Nader
 Associate Professor
Slocom, Peter A.
 Assistant
Sosenko, George R.
 Instructor
Strzyz, James
 Instructor
Sullivan, James D.
 Associate Professor
Tsou, Richard
 Instructor
Valenta, James C.
 Associate Professor
Weinstein, Robert J.
 Instructor
Zimmerman, Robert D.
 Instructor

Alphabetical List

The following list includes self-reported data on the highest degree, and university conferring that degree, plus the department(s) in which the faculty member has an appointment and, if applicable, network hospital affiliation.

Alphabetical Listing Abbreviations

(no abbreviation indicates Rush-Presbyterian-St. Luke's Medical Center)

BETH	Bethany Hospital	MLSQ	Mile Square Health Center, Inc.
CDH	Central DuPage Hospital	MTSN	Mt. Sinai Hospital Medical Center
CH	Christ Hospital	SKVH	Skokie Valley Hospital
COMM	Community Memorial General Hospital	SMAR	St. Mary's Hospital
COPL	Copley Memorial Hospital	SWED	Swedish Covenant Hospital
GBUR	Galesburg Cottage Hospital	WSUB	West Suburban Hospital Medical Center
GRNT	Grant Hospital of Chicago		

Academic Degree:

A.B.; B.A.	Bachelor of Arts
B.D.	Bachelor of Divinity
B.S.	Bachelor of Science
D.D.	Doctor of Divinity
D.Min.	Doctor of Ministry
D.D.S.	Doctor of Dental Surgery
D.N.Sc.	Doctor of Nursing Science
D.O.	Doctor of Osteopathy
Dr.P.H.	Doctor of Public Health
D.V.M.	Doctor of Veterinary Medicine
Ed.D.	Doctor of Education
J.D.; L.L.B.	Doctor of Law
M.A.	Master of Arts
M.B.A.	Master of Business Administration
M.B.B.Ch.	Bachelor of Medicine/Bachelor of Chirugy
M.B.B.S.	Bachelor of Medicine/Bachelor of Surgery
M.C.D.	Master of Communications Disorders
M.D.	Doctor of Medicine
M.H.A.	Master of Hospital Administration
M.M.	Master of Management
M.N.	Master of Nursing
M.O.T.	Master of Occupational Therapy
M.P.H.E.	Master in Public Health Education
M.S.	Master of Science
M.S.Ed.	Master of Science in Education
M.S.I.E.	Master of Science in Industrial Engineering
M.S.N.	Master of Science in Nursing
M.S.W.	Master of Social Work
Pharm.D.	Doctor of Pharmacy
Ph.D.	Doctor of Philosophy
Psy.D.	Doctor of Psychology
Th.M.	Master of Theology

Note:

- Lowell Technological Inst. is now the U. of Lowell
- Chicago-Kent College of Law merged with I.I.T. in 1969
- Chicago Med. Sch. is now the U. of H.S./Chicago Med. Sch.
- Rush Med. Col. degrees were conferred by The U. of Chicago through 1942
- Sch. of Med. of Marquette U. is now Med. Col. of Wi.
- Woman's Med. Col. is now Med. Col. of Phila.
- M.D. degrees conferred by the U. of I. were conferred by the U. of I. at Urbana until 1973; by the U. of I. at the Med. Ctr. until September 1982; by the U. of I. at Chicago thereafter
- Jefferson Med. Col. of Phila. is now part of Thomas Jefferson U.

Faculty Alphabetical List

Aagesen, Carl
D.O., U. of Iowa
Psychi.

Abramowitz, Bruce
M.D., SUNY at Buffalo
Int. Med.(CH)

Abuid, Alex
M.D.
Ped.

Acharya, Vasant
M.B.B.S., India
Ob. & Gyne.

Ackley, William O.
M.D., Chicago Med. Sch.
Gen. Surg.(SWED)

Ackman, Jeffrey D.
M.D.
Ortho. Surg.

Acord, Lea G.
Ph.D., U. of Pittsburgh
Pediatrics Nsg.

Adams, Constance
Dr.P.H., Johns Hopkins U.
Obstetrics & Gynecology Nsg.

Adams, James R.
M.D., Northwestern U.
Gen. Surg.(GRNT)

Adams, Verdine
D.P.M., Northwestern U.
Ortho. Surg.

Adelman, Philip A.
M.D., Rush U.
Neuro. Sci.

Adelman, Scott H.
M.D., Michigan State U.
Int. Med.

Adkins, Geoffrey
M.D., U. of Chicago
Ob. & Gyne.

Adler, Solomon
M.D.
Int. Med.

Adler, Yolanda T.
M.D., Argentina
Di. Rad. & Nuc. Med., Int. Med.

Aduss, Howard
D.D.S., Northwestern U.
Pls. & Rec. Surg., Gen. Surg.

Agarwal, Gyan C.
Ph.D., Purdue U.
Physiol.

Agarwala, Brojendra N.
M.B.B.S., India
Ped.(MTSN)

Aggarwal, Keshav
M.D., India
Int. Med.

Agruss, Neil
M.D., U. of I. at Chicago
Int. Med.

Aguila, Marisa S.
M.D. Ped.

Ahluwalia, Kumar Y.
M.B.B.S., India
Psychi.(MTSN)

Ahmad, Tanveer
Ph.D., Rush U.
Pharmacology

Ahmadian, Yahya S.
M.D., Iran
Ped.(CH)

Ahmed, Khalid F.
M.B.B.S., Pakistan
Fam. Prac.(CH)

Ahmed, Mohammad
M.B.B.S., India
Int. Med.(MTSN)

Ahstrom, Jr., James P.
M.D., Northwestern U.
Ortho. Surg.(WSUB)

Aimi, Kenji
M.D., Japan
Oto. & Bronc.

Airan, Mohan C.
M.B.B.S., India
Gen. Surg.(MTSN)

Akers, Paul T.
D.D.S., Loyola U. of Chicago
Gen. Surg.

Akhter, Naheed
M.D., India
Ob. & Gyne.

Akrami, Cyrus
M.D., Iran
Ped.(CH)

Akre, Osmund H.
M.D., Rush Med. Col.
Int. Med.

Al Aswad, Basel
M.D., Iraq
Ortho. Surg.(CH)

Alavi, Iltifat A.
M.B.B.S., Pakistan
Int. Med.(COMM)

Albertson, Barbara J.
M.D., U. Of I. at Urbana
Ped.

Albovias, Susan P.
M.D., Philippine Is.
Fam. Prac.(CH)

Alcorn, Franklin
M.D., New York U.
Di. Rad. & Nuc Med.

Alder, Gary F.
D.D.S., Northwestern U.
Gen. Surg.

Alexakis, Yianoula
Psy.D., Fl. Inst. of Tech.
Ped., Psych. & Soc. Sci.

Alfredson, Janet
M.S., Rush U.
Surg. Nsg.

Ali, Amjad
M.B.B.S., India
Di. Rad. & Nuc. Med.

Ali, Muhammad
M.B.B.S., India
Int. Med.(BETH)

Aliaga, Jorge
M.D., Peru
Int. Med.

Allan, Joan
M.S., U. of South Florida
Oto. & Bronc., Rel. Hlth. Prg.

Allen, Richard R.
M.D., U. of I. at Chicago
Ped.(COMM)

Ambrose, Laureen
M.D., Chicago Med. Sch.
Ob. & Gyne.(CH)

Ambrosini, Virginia
M.D., SUNY Downstate Med. Ctr.
Int. Med.(MTSN)

Ambutas, Shirley
M.S., Rush U.
Med. Nsg.

Amdur, Mark
M.D., Northwestern U.
Psychi.(MLSQ)

Amine, Abdul R. C.
M.D., Syria
Neuro. Surg.(CH)

Anagnos, John
M.D., Greece
Int. Med.(CH)

Andersen, James H.
M.D., U. of I. at Chicago
Cv.T. Surg.(WSUB)

Anderson, Jr., Robert A.
Ph.D., Chicago Med. Sch.
Ob. & Gyne., Physiol.

Anderson, David R.
Ph.D., U. of N.D.-Grand Forks
Psych. & Soc. Sci., Psychi.

Anderson, Donald
M.S., Lowell Tech. Inst.
Geront. Nsg.

Anderson, Jeffrey E.
M.D., Rush U.
Int. Med.

Anderson, Karen Ann
B.S., U. of I. at Chicago
Rel. Hlth. Prg.

Anderson, Kenning M.
M.D., Northwestern U.
Ph.D., U. of Chicago
Biochem., Int. Med.

Anderson, Nancy
M.S., Northern Illinois U.
Psychi, Nsg.

Anderson, Philip
M.D., U. of Nebr. Med. Ctr.
Ph.D., U. of Nebr.-Lincoln
Fam. Prac.(SWED)

Anderson, Richard W.
M.D., U. Of I. at Urbana
Ob. and Gyne.(COMM)

Anderson, Susan
Psychi. Nsg.

Andersson, Gunnar
Ph.D., Sweden
Ortho. Surg.

Andrews, Jr., Albert H.
M.D., Northwestern U.
Oto. & Bronc.

Andrews, Diane R.
M.S., U. of I. at Chicago
Surg. Nsg.

Andrews, Susan B.
Ph.D., U. of I. at Chicago
Psych. & Soc. Sci.

Andrews, Thomas W.
M.D., U. of I. at Chicago
Anesthet.

Andrews, William J.
M.D., U. Of I. at Urbana
Int. Med.(SWED)

Andriacchi, Julia H.
M.D., Northwestern U.
Psychi

Andriacchi, Thomas P.
Ph.D., U. of I. at Chicago
Ortho. Surg.

Andricacou, Calliope
M.D., Greece
Ped.(CH)

Anees, Ahmed M.
M.B.B.S., India
Di. Rad. & Nuc. Med.

Angarita, Luis
M.D., Spain
Int. Med.(MTSN)

Angspatt, Sompengse
M.D., Thailand
Ped.(CH)

Ansari, Shahid A.
M.D., India
Gen. Surg.(MTSN)

Anthony, Paul K.
M.D., Loyola U. of Chicago
Ped.(CH)

Appenheimer, Linda
M.S., Rush U.
Surg. Nsg.

Arain, Mohammed
M.B.B.S., Pakistan
Gen. Surg.(COMM)

Arazoza, Antonio
M.D.
Ortho. Surg.

Archie, Julian T.
M.D., New York U.
Ob. & Gyne.

Arjmand, Alieh
M.D., Iran
Ob. & Gyne.

Armbruster, Kent
M.D., U. of I. at Chicago
Int. Med.(CH)

Armstrong, Claresa
M.D., Med. Col. of Pa.
Psychi.

Armstrong, Michael K.
Ph.D., Michigan State U.
Rel. Hlth. Prg.

Arneicilla, Pablo B.
M.D., Philippine Is.
Ped.(MTSN)

Arnell, Lantz
M.D., Northwestern U.
Ophthalmology

Arnold, Carolyn
M.S., Rush U.
Obstetrics & Gynecology Nsg.

Arons, Martin
M.D., Germany
Psychi.(MTSN)

Arora, Vipal K.
M.B.B.S., India
Ob. & Gyne.(MTSN)

Arsenis, Charalampos
Ph.D., Cornell U. Med. Ctr.
Biochem.

Aruguete, Christine M.
M.D., U. of I. at Chicago
Int. Med.(CH)

Aruguete, Jose
M.D., U. of I. at Chicago
Int. Med.(CH)

Ashbach, David L.
M.D., Case Western Reserve U.
Int. Med.

Atkins, Martha F.
M.S., Iowa St. U. Sci. and Tech.
Rel. Hlth. Prg.

Atlas, Gerald D.
M.D., U. of I. at Chicago
Fam. Prac.(SWED)

Auer, Roy
M.D., Washington U.
Di. Rad. & Nuc. Med

Augustson, Michael K.
M.D., Michigan State U.
Fam. Prac.(CH)

Austin, David F.
M.D., Northwestern U.
Oto. & Bronc.

Awan, Azhar M.
M.D., Loyola U. of Chicago
Th. Rad

Axelrod, Edward H.
M.D., U. of I. at Chicago
Ob. & Gyne.(CH)

Aydelotte, Margaret
Ph.D., U.K.
Biochem.

Ayer, John P.
M.D., McGill U., Canada
Pathology

Azouz, David
M.D., McGill U., Canada
Pls. & Rec. Surg., Ortho. Surg.

Baba, Walten A.
M.D., Iraq
Ph.D., U.K.
Fam. Prac.(SWED)

Babakitis, Mary R.
M.D., Greece
Ped.(CH)

Babanoury, Agha B.
M.D., Iran
Urology(GBUR)

Babich, Karen S.
Ph.D., U. of Co.-Boulder
Psychi. Nsg.

Backer, Barbara
M.D., Indiana St. U.
Int. Med.

Bacon, Lynd
Ph.D., U. of I. at Chicago
Psych. & Soc. Sci.

Bacon, Mary
M.A., Northern Illinois U.
Oto. & Bronc., Rel. Hlth. Prg.

Bacus, James
Ph.D., U. of I. at Chicago
Int. Med.

Badowski, Andrew K.
M.D., Poland
Ob. & Gyne.

Badrinath, Shyamala K.
M.B.B.S., India
Anesthet.

Baer, Richard K.
M.D., U. of I. at Chicago
Psychi.

Baffes, Chris G.
Gen. Surg.

Baffes, Thomas G.
M.D., Tulane U. of Louisiana
J.D., DePaul U.
Gen. Surg.(MTSN)

Bagri, Sushil
M.B.B.S., India
Psychi.

Baig, Suraiya F.
M.D.
Ped.

Bailey, Larry L.
M.D., U. of Ks. Med. Ctr.
Oto. & Bronc.

Bailey, Orville T.
M.D., Albany Med. Col.
Neuro. Sci., Pathology

Baker, James W.
M.D.
Gen. Surg.

Balagtas, Rolando C.
M.D., Philippine Is.
Ped.

Baldinger, Michael
M.D., Mt. Sinai Sch. Med. of CUNY
Int. Med.(GRNT)

Baldwin, David
M.D., Northwestern U.
Int. Med.

Balkoura, Maria H.
M.D., Greece
Int. Med.(MTSN)

Ball, Fred E.
M.D., U. of I. at Chicago
Int. Med.

Ballin, Michael
M.D., U. of I. at Chicago
Fam. Prac.(CH)

Banich, Francis E.
M.D., Loyola U. of Chicago
Gen. Surg.

Banner, Barbara
M.D., U. of Rochester
Pathology

Baraglia, James P.
M.D., Chicago Med. Sch.
Fam. Prac.(WSUB)

Barber, Frederick A.
M.D., U. of I. at Chicago
Fam. Prac.(WSUB)

Barcilon, Victor
Ph.D., Harvard U.
Physiol.

Bardawil, Lawrence W.
M.D., Tufts U.
Int. Med.

Bardwell, Jacqueline
B.S., Chicago State Univ.
Fam. Prac.

Barhyte, Diana Y.
Ph.D., Cornell U. Med. Ctr.
Comm. Hlth. Nsg., Hlth. Syst. Mgt.

Faculty Alphabetical List

Barkin, Robert
M.B.A., DePaul U.
Pharmacology

Barnard, Cindy
B.A., Bryn Mawr Col.
Hlth. Syst. Mgt.

Barnes, Louis J.
M.D., U. of I. at Chicago
Int. Med.

Baron, John W.
M.D., Loyola U. of Chicago
Int. Med.(CH)

Barr, Sanford L.
D.D.S., Northwestern U.
Gen. Surg

Barrell, Lorna M.
Ph.D., U. of I. at Chicago
Psychi. Nsg.

Barrett, David
M.D., Sch. of Med. of Marquette U.
Pathology(CDH)

Barrett, Jean E.
M.S., I.I.T.
Rel. Hlth. Prg.

Barrett, Sue
M.S., Rush U.
Obstetrics & Gynecology Nsg.

Barrett, Terrence A.
M.D., U. of I. at Chicago
Int. Med.

Barry, Diana
M.B.A., Rosary Col.
Rel. Hlth. Prg.

Barry, Patricia M.
M.S., U. of I. at Chicago
Pediatric Nsg.

Barsanti, Carl M.
M.D., Loyola U. of Chicago
Int. Med.(MLSQ)

Bartlett, Cynthia L.
Ph.D., U. of Pittsburgh
Oto. & Bronc., Rel. Hlth. Prg.

Barton, Evan M.
M.D., Johns Hopkins U.
Int. Med.

Barton, John L.
M.A., Arizona State U.
Psych. & Soc. Sci.

Bartow, Thomas J.
M.D., SUNY at Stony Brk. H.S. Ctr.
Int. Med.

Basch, Michael
M.D., Loyola U. of Chicago
Psychi.

Bass, Gordon
M.M., Northwestern U.
Hlth. Syst. Mgt.

Bassrawi, Margaret
M.S., U. of I. at Chicago
Comm. Hlth. Nsg.

Bassuk, Angel B.
M.D., Argentina
Gen. Surg., Ped.

Basuray, Rita
Ph.D., U. of I. at Chicago
Ob. & Gyne.

Batchu, Koteswara R.
M.B.B.S., India
Ped.

Baum, Hugo C.
M.D., Rush Med. Col.
Ob. & Gyne.

Baumann, Dorothy
Med. Nsg.

Baumgartner, George C.
M.D., U. of I. at Chicago
Urology

Bayard, Walter J.
M.D., U. of S.C.-Columbia
Di. Rad. & Nuc. Med.

Baydoun, Adnan B.
M.D., Albany Med. Col.
Ob. & Gyne.(CH)

Bazile, Frantz
M.D., Belgium
Ob. & Gyne.(MTSN)

Beck, Robert
Ph.D., U. of I. at Chicago
Ortho. Surg.

Becker, Eliot
D.D.S., U. of I. at Chicago
Gen. Surg.(MTSN)

Becker, Frank O.
M.D., U. of I. at Chicago
Int. Med.(CH)

Beckerman, Andrea G.
B.S., U. Of I. at Urbana
Rel. Hlth. Prg.

Beebe, Robert A.
M.D., U. of I. at Chicago
Ob. & Gyne.

Beedle, Dennis
M.D.
Psychi.

Behrend, Frank L.
M.D., U. of I. at Chicago
Ob. & Gyne.

Belanger, Michael G.
Ph.D., U. of I. at Chicago
Int. Med.

Belcher, Meriwyn
D.V.M., U. of Chicago
Ortho. Surg.

Belingon, Ceilo C.
M.D.
Ped.

Belkengren, Richard
M.D., Loyola U. of Chicago
Ped.

Bell, Virginia
B.S., U. of Kansas
Rel. Hlth. Prg.

Bellosa, Nora T.
M.D., Philippine Is.
Ped.(CH)

Bender, Harry Z.
M.D., Germany
Fam. Prac.(CH)

Benezra, Eliot E.
M.D., Northwestern U.
Psychi.

Benjamin, Fred P.
Hlth. Syst. Mgt.

Benjamin, Sharon
B.S., U. of I. at Chicago
Rel. Hlth. Prg.

Bennett, Donald R.
M.D., Ph.D., U of Mich.
Fam. Prac.

Bennett, Thomas O.
M.D., U. of I. at Chicago
Ophthalmology(CH)

Benson, Constance
M.D., Ohio St. U.
Int. Med.

Benson, David
M.D., U. of I. at Chicago
Psychi.(MLSQ)

Berchuck, Matthew
M.D., Case Western Reserve U.
Ortho. Surg.

Berendi, Sandor
M.D., Hungary
Psychi.

Bereza, Deanne
M.S., U. of I. at Chicago
Obstetrics & Gynecology Nsg.

Bergen, Donna
M.D., U. of I. at Chicago
Neuro. Sci.

Berger, Barry W.
D.O., U. of Chicago
Int. Med.

Berger, Jack C.
M.D., U. of Chicago
Psychi.

Berger, Steven M.
M.D., Mexico
Anesthes.

Berger, Victor P.
M.D., Chicago Med. Sch.
Neuro. Sci.

Berlow, Susan J.
M.A., Northwestern U.
Rel. Hlth. Prg.

Bernat, John
J.D., Chgo.-Kent Col. of Law
Hlth. Syst. Mgt.

Betz, Eleanor
B.S., I.I.T.
Prev. Med.

Beverly, Bert I.
M.D., Hahnemann Med. Col.
Ped.(WSUB)

Bezkorovainy, Anatoly
Ph.D., U. of I. at Chicago
Biochem., Rel. Hlth. Prg.

Bharani, Sakina
M.B.B.S., India
Ped.

Bharati, Saroja
M.B.B.S., India
Ped.

Bhoopal, Vasireddy
M.B.B.S., India
Fam. Prac.(CH)

Biary, Maha S.
M.D., Syria
Ped.

Bice, Michael K.
M.D., Australia
Int. Med.

Bick, Richard H.
M.D., Northwestern U.
Fam. Prac.

Bidani, Anil
M.B.B.S., India
Internal Medicine Ped.

Bieliauskas, Linas
Ph.D., Ohio U.
Psych. & Soc. Sci.

Bielinski, Stefan
M.D., Loyola U. of Chicago
Dermatology

Bigger, Harold
M.D., In. U.-Purdue U. at Indpl.
Ped.

Bikshorn, Barry H.
M.D., Rush U.
Neuro. Sci.

Billhardt, Jr., Roger A.
M.D., Loyola U. of Chicago
Int. Med.

Billingham, Katherine
Ph.D., DePaul U.
Psych. & Soc. Sci.

Billow, Michael A.
D.O.
Ped.

Birnholz, Jason C.
M.D., Johns Hopkins U.
Di. Rad. & Nuc. Med., Ob. & Gyne.

Bishop, Catherine L.
B.S., Rush U.
Rel. Hlth. Prg.

Bishop, Jacqueline J.
M.M., Northwestern U.
Hlth. Syst. Mgt.

Bissinger, Craig
M.D.
Ob. & Gyne.

Blaauw, Bernard B.
M.D., U. of I. at Chicago
Int. Med.

Blacklow, Robert
M.D., Harvard U.
Int. Med.

Blackwell, Jane
M.S., U. of I. at Chicago
Obstetrics & Gynecology Nsg.

Blaine, Richard M.
M.D., Loyola U. of Chicago
Ophthalmology(SWED)

Blair, John N.
M.D., In. U.-Purdue U. at Indpl.
Ped.(COPL)

Blair, Kenneth M.
M.D., Wayne State U.
Fam. Prac.(WUB)

Blankenship, Marshall
M.D., U. of I. at Chicago
Dermatology

Blankshain, Richard H.
M.D., U. of I. at Chicago
Ob. & Gyne.(WSUB)

Bleck, Phyllis C.
M.D., Rush U.
Gen. Surg.

Bleck, Thomas P.
M.D., Rush U.
Int. Med., Neuro. Sc.

Bleyer, Frank
M.D.
Int. Med.

Block, Lenn
M.S.Ed., Northern Illinois U.
Hlth. Syst. Mgt.

Block, Leslie J.
M.D., Chicago Med. Sch.
Oto. & Bronc.

Bloom, Allen D.
M.D.
Gen. Surg.

Bloom, Irving
M.D., Chicago Med. Sch.
Int. Med.

Bloom, Kenneth J.
M.D., Rush U.
Pathology

Bloom, Robert W.
M.D., Rush U.
Psychi.

Blumberg, Martin B.
M.D., U. of I. at Chicago
Int. Med.(SWED)

Blumberg, Phyllis
Ph.D., U. of Pittsburgh
Psych. & Soc. Sci.

Bobek, Bonnie
M.S.N., St. Louis U.
Obstetrics & Gynecology Nsg.

Bogdonoff, Maurice L.
M.D., Yale U.
Di. Rad. & Nuc. Med., Int. Med.

Bohan, John L.
M.D., Northwestern U.
Int. Med.

Bojar, Robert
M.D., Brown U.
Cv.T. Surg.

Bolanos, Jose M.
M.D., Mexico
Pathology(CH)

Bolton, Cornelius F.
M.D., Meharry Med. Col.
Int. Med.

Bolton, Edmund
M.D., Meharry Med. Col.
Int. Med.

Bondoc, Felipe
M.D., Philippine Is.
Anesthes.(MTSN)

Bone, Roger C.
M.D., U. of Az. Med. Ctr.
Int. Med.

Bonick, Jr., James F.
D.D.S., Loyola U. of Chicago
Gen. Surg.

Bonomi, Philip D.
M.D., U. of I. at Chicago
Int. Med.

Borkovec, Kent F.
M.D., Northwestern U.
Urology(COMM)

Bormes, Thomas P.
M.D., Loyola U. of Chicago
Urology

Bosack, Robert C.
D.D.S., Loyola U. of Chicago
Gen. Surg.(CH)

Boscardin, James B.
M.D., U. of I. at Chicago
Ortho. Surg.(CH)

Bosch, Albert V.
M.D., Spain
Ortho. Surg.(CH)

Bossano, J. Manuel
M.D.
Ped.

Bourque, Joseph
M.D.
Ob. & Gyne.

Bowser, Robert L.
M.D., U. of Okla.
Fam. Prac.

Boyd, Cynthia E.
M.D., George Washington U.
Int. Med.

Boyd, Eugene
Pharmacology

Boyer, Robert J.
M.D., Chicago Med. Sch.
Fam. Prac.(CH)

Boysen, Harry
M.D., U. of Iowa
Ob. & Gyne.

Boysen, Lawrence D.
M.D.
Ob. & Gyne.

Bozynski, Mary Ellen
M.D., Wayne State U.
Ped.

Bracken, Robert L.
B.S., Loyola U. of Chicago
Hlth. Syst. Mgt.

Brackett, E. Boone
M.D., Baylor U.
Ortho. Surg.(WSUB)

Bradley, Craig
M.D., U. of Tn., Memphis
Pls. & Rec. Surg.

Brady, Catherine
B.S., Mt. St. Mary Col.
Rel. Hlth. Prg.

Brandt-Guckles, Deborah
M.S., U. of Wi.-Madison
Rel. Hlth. Prg.

Brant, Julius
M.D., Chicago Med. Sch.
Fam. Prac.(CH)

Braun, Bennett
M.D., U. of I. at Chicago
Psychi.

Braun, Donald
Ph.D., U. of I. at Chicago
Int. Med., Im./Micro.

Braun, Leonard L.
M.D., Rush Med. Col.
Ped.

Braun, Lynne
M.S., Rush U.
Med. Nsg.

Braverman, Burton
Ph.D., In. U.-Bloomington
Anesthes., Physiol.

Bray, Emily
M.D., U. of I. at Chicago
Fam. Prac.(WSUB)

Bray, James B.
M.D., Loyola U. of Chicago
Ob. & Gyne.(CH)

Brazley, Marsha J.
M.D., U. of I. at Chicago
Ped.

Bregman, Andrew
M.D., Northwestern U.
Int. Med.(CDH)

Faculty Alphabetical List

Breit, Robert B. M.D., U. of Virginia Di. Rad. & Nuc. Med.	Brugioni, Daniel J. M.D., Rush U. Ortho. Surg.	Burn, Elizabeth M.S.N., Vanderbilt U. Surg. Nsg.
Bremer, Catherine M.S., Rush U. Surg. Nsg.	Bruhn, Charles E. M.B.A., Northern Illinois U. Hlth. Syst. Mgt.	Burns, Carol M.S., Rush U. Surg. Nsg.
Brennan, Terry E. M.D., Duke U. Dermatology	Brundage, Joan M.S., U. of Co. H.S. Ctr. Pediatric Nsg.	Burnstine, Thomas M.D., Rush U. Int. Med.
Brenner, Lisa P. Ph.D., U. of I. at Urbana Psych. & Soc. Sci.	Bruun, Edward E. M.H.A., Xavier U. Hlth. Syst. Mgt.	Burroughs, Jefferson M. M.D., U. of Cincinnati Int. Med.
Breth, George M.D., Austria Int. Med.(CH)	Bryant, R. Samuel M.D. Gen. Surg.	Burstein, Stuart M.D., U. of I. at Chicago Psychi.
Breuhaus, Herbert C. M.D., Rush Med. Col. Int. Med.	Buchholz, Valre M.S.N. Comm. Hlth. Nsg.	Busby, Jean M.S.N., Ohio St. U. Med. Nsg.
Brocken, Cecilia Ph.D., Loyola U. of Chicago Psych. & Soc. Sci., Ped.	Buch, Piyush C. M.B.B.S., India Psychi.(CH)	Busch, Katie M.D., U. of Wi.-Madison Psychi.
Brody, Charlotte S. M.D. Ob. & Gyne.	Buchanan, Bernice Ph.D., Catholic U. of America Comm. Hlth. Nsg.	Buseck, Mark S. M.D., U. of Pennsylvania Ortho. Surg.
Brown, David V. L. M.D., Northwestern U. Ophthalmology	Bucheleres, Gunther H. M.D., Germany Ped., Int. Med.	Bush-Joseph, Charles M.D., U. of Michigan Ortho. Surg.
Brown, Dawn M.S., U. of I. at Chicago Obstetrics & Gynecology Nsg.	Buchman, Aron S. M.D., Chicago Med. Sch. Neuro. Sci.	Butler, Craig D. M.D., Rush Med. Col. Ped.
Brown, Elizabeth M.D., U. of I. at Chicago Pathology	Buck, David W. M.D., Indiana Central U. Psychi.	Butler, Paula R. M.D., Tufts U. Int. Med.(MTSN)
Brown, Lorin M. M.D., Chicago Med. Sch. Ortho. Surg.	Buckingham, Richard A. M.D., U. of I. at Chicago Oto. & Bronc.	Butler, Peter W. M.H.A., U. of Mich. Hlth. Syst. Mgt.
Brown, Marie T. M.D., Rush U. Int. Med.	Buckun, George R. M.D., Sch. of Med. of Marquette U. Urology(COMM)	Byers, Sharon Ph.D., Australia Biochem., Ortho. Surg.
Brown, Max D. J.D., DePaul U. Hlth. Syst. Mgt.	Budz, Jerome M.D., Loyola U. of Chicago Dermatology	Cacas, Eduardo C. M.D., Philippine Is. Ped.
Brown, R. Gordon M.D., Rush Med. Col. Int. Med.	Buenger, Richard E. M.D., Northwestern U. Di. Rad. & Nuc. Med.	Cagan, Janyce M.S.N., Loyola U. of Chicago Obstetrics & Gynecology Nsg.
Brown, Robert W. M.D., Baylor Col. of Med. Fam. Pract.	Buentello, Gloria N. M.D., Mexico Ped.(MTSN)	Cahill, Maureen M.S.N., Boston U. Pediatric Nsg.
Brown, William C. M.D., U. of Cincinnati Int. Med.	Bulger, Richard F. M.D., U. of I. at Chicago Oto. & Bronc.	Caldarelli, David D. M.D., U. of I. at Chicago Oto. & Bronc.
Brozenec, Sally M.S., Rush U. Surg. Nsg.	Bulmash, Jack M. M.D., U. of I. at Chicago Int. Med.	Calderon, Julio M.D., Bolivia Ob. & Gyne.(CH)
Brubaker, Linda M.D., Rush U. Ob. & Gyne.	Bunn, James E. M.D., Rush U. Oto. & Bronc.	Caldwell, Richard G. M.D., U. of Vermont Gen. Surg.
Bruce, David R. D.D.S., M.D., Northwestern U. Oto. & Bronc.	Burbank, Barbara B. M.T.S., Prot. Epis. Theo. Sem. Relig. & Hlth.	Callahan, Daniel H. M.D., U. of Md. Balt. Prof. Sch. Urology
Brueckner, David A. M.D., U. of Washington Psychi.	Burck, Russell Ph.D., Princeton Theo. Sem. Relig. & Hlth.	Camacho, Bienvenido M.D., Philippine Is. Fam. Pract.(CH)
Brueschke, Erich M.D., Temple U. Fam. Pract., Physiol.	Burdick, Allison L. M.D., U. of I. at Chicago Fam. Pract.(WSUB)	Camacho, Felicitas C. M.D., Philippine Is. Ped.(CH)
Bruetman, Martin E. M.D., Argentina Neuro. Sci.	Burkholder, Theodore M. M.D., U. of Chicago Urology	Campanella, Ruth S. M.D., Rush U. Oto. & Bronc.

Campbell, Bruce C. Dr.P.H., U. of I. at Chicago Hlth. Syst. Mgt.	Carson, Paul E. M.D., Harvard U. Pharmacology, Int. Med.	Chacho, Mary S. M.D., Loyola U. of Chicago Pathology
Campbell, David R. M.D., Cornell U. Med. Ctr. Int. Med.	Carter, Joseph L. M.D. Int. Med.	Chaitkin, Paul D.D.S., U. of I. at Chicago Gen. Surg.
Campbell, Michael J. M.D., U. of I. at Chicago Ped.(CH)	Carton, Robert M.D., Northwestern U. Int. Med.	Chan, Paulino M.D., Philippine Is. Ortho. Surg.
Cann, Stephen R. M.D., Chicago Med. Sch. Psychi.(MTSN)	Cartwright, Rosalind D. Ph.D., Cornell U. Med. Ctr. Psych. & Soc. Sci.	Chande, Sumitra M.B.B.S., India Ped.(CH)
Canna, James J. M.B.A., Northwestern U. Hlth. Syst. Mgt.	Carvalho, Anna M.S., Harvard U. Hlth. Syst. Mgt.	Chandler, Jesse M.D., Howard U. Ob. & Gyne.(MTSN)
Cannon, Ann M.S., Rush U. Pediatrics Nsg.	Carvey, Paul Ph.D., Rush U. Neuro. Sci., Pharmacology	Chandra, Govind M.D., India Int. Med.(COPL)
Cannon, Joseph P. M.D., U. of I. at Chicago Gen. Surg.(CH)	Casanova, Nancy K. M.S., Rush U. Med. Nsg.	Chang, Timothy C. M.D., China-Taiwan Ped.
Cannon, Robert L. M.D., Indiana St. U. Ophthalmology(GBUR)	Casey, Donald M.D. Int. Med.	Chapekis, Anthony T. M.D., U of Michigan Int. Med.
Cantez, Talat M.D., Turkey Ped.(CH)	Casini, Donna M.S.N., Case Western Reserve U. Surg. Nsg.	Chapman, Kristine A. B.S., U. of Wi.-Madison Rel. Hlth. Prg.
Cantorna, Bernard M.D., Cuba Ped.	Casini, Jack G. M.D. Ortho. Surg.	Charles, Andrew V. M.D., U. of I. at Chicago Psychi.
Capek, Michael M.D., Northwestern U. Di. Rad. & Nuc. Med.	Castaneda, Jorge M.D., Mexico Int. Med.(MTSN)	Charters, John R. M.D., Michigan State U. Di. Rad. & Nuc. Med.
Carasso, Ben M.D., Greece Int. Med.	Castellanos, Mary M.S., I.I.T. Rel. Hlth. Prg.	Chase, Robert A. M.D., Rush U. Int. Med.
Carfang, Carol J. M.S.N. Comm. Hlth. Nsg.(GRNT)	Catchpole, Hubert R. Ph.D., U. of Ca.-Berkeley Neuro. Sci.	Chaudhary, Mohammad Y. M.D., Pakistan Ped.
Carley, Matthew D. M.D., Albany Med. Col. Int. Med.	Catellani, Constance M.D., U. of I. at Chicago Int. Med.	Chaudhuri, Gouri M.B.B.S., India Ortho. Surg.
Carlock, William D. M.D., U. of I. at Chicago Psychi.	Cava, Jose M. M.D., Spain Ob. & Gyne.(CH)	Chavarria, Arturo M.D., Rush U. Internal Medicine (CH)
Carlson-Sabelli, L. M.S., Rush U. Psychi. Nsg.	Cavanaugh, Jr., James L. M.D., U. of Pennsylvania Psychi.	Chawapun, Ponpimol M.D., Thailand Fam. Prac.(SWED)
Carlson, Elizabeth M.S.N., U. of Al. in Birmingham Med. Nsg.	Cavanaugh, Stephanie M.D., Northwestern U. Psychi., Int. Med., Ob. & Gyne.	Cheifetz, David I. Ph.D., U. of Chicago Psych. & Soc. Sci.
Caron, Kathleen H. M.D., Loyola U. of Chicago Di. Rad. & Nuc. Med.	Cavens, Robert L. M.D., Rush U. Fam. Prac.(CH)	Chen, Jackson W. M.D., China-Taiwan Ped.
Carr, Ginger M.S., Rush U. Psychi. Nsg.	Ceaser, Leonard S. M.D., Loyola U. of Chicago Fam. Prac.(WSUB)	Chen, Kuo Ching M.D., China-Taiwan Gen. Surg.(CH)
Carr, Ian R. M.B.B.S., U.K. Ped.	Celewycz, Bohdan S. M.D., Germany Ped.	Chertack, Craig S. M.D. Gen. Surg.
Carr, Janet M.D., Meharry Med. Col. Ped.	Cercone, Jaime M.D., Chicago Med. Sch. Gen. Surg.	Chhablani, Ramesh M.B.B.S., India Int. Med.
Carroll, Gilbert M.D., Hahnemann Med. Col. Anesthes.	Cestaro-Seifer, D. M.S., U. of I. at Chicago Pediatric Nsg.	Childress, Barry M.D., U. of I. at Chicago Psychi.
Carroll, John M.D. Ob. & Gyne.	Cha, Eung Man M.D., Korea Di. Rad. & Nuc. Med.(MTSN)	Ching, Quimbo M.D. Ped.

Faculty Alphabetical List

Chisholm, Paul S.
M.D., Rush U.
Ped.(MTSN)

Choi, Chisoo
M.D., Rush U.
Int. Med.

Chor, Philip N.
M.D., U. of Cincinnati
Psychi.

Choudhry, Anwar S.
M.B.B.S., Pakistan
Cv.T. Surg.(CH)

Chow, Herbert
Ph.D., U. of I. at Chicago
Im./Micro.

Christen, Charles
M.D., Switzerland
Int. Med.

Christensen, Eldis M.
M.D., U. of I. at Chicago
Gen. Surg.(COMM)

Christian, Joseph R.
M.D., Loyola U. of Chicago
Ped.

Christiansen, Kathy
D.N.Sc., Rush U.
Comm. Hlth. Nsg.

Christman, Luther
Ph.D., Michigan State U.
Psychi. Nsg., Psych. & Soc. Sci.

Christopher, Beth A.
M.S., U of Mich.
Med. Nsg.

Christopoulos, Angelos
M.D., Greece
Psychi.

Chronis, Basil G.
M.D., Greece
Ob. & Gyne.(CH)

Chudwin, David S.
M.D., U of Michigan
Im./Micro., Ped.

Chung-Bin, Anthony
Ph.D., Sthest La. Col.
Th. Rad., Di. Rad. & Nuc. Med.,
Rel. Hlth. Prg.

Cladek, Lydia
M.S., U. of I. at Chicago
Surg. Nsg.

Claman, Maurice A.
M.D., Tulane U. of Louisiana
Gen. Surg.(GBUR)

Clark, Constance M.
M.S.N., U. of Michigan
Surg. Nsg.

Clark, David C.
Ph.D., U. of Chicago
Psych. & Soc. Sci., Psychi.

Clark, David J.
M.B.,B.Ch., U.K.
Ortho. Surg.(COPL)

Clark, James G.
M.D., U. of I. at Chicago
Int. Med.

Clark, John W.
M.D., Harvard U.
Di. Rad. & Nuc. Med.

Clark, Valeria F.
M.D., U. of I. at Chicago
Ped.

Clarke, Jan A.
M.D., Cornell U. Med. Ctr.
Int. Med.(MTSN)

Clasen, Raymond A.
M.D., U. of I. at Chicago
Pathology

Clayton, Sheldon P.
Ph.D., West Virginia U.
Anat.

Clemmings, Linda
M.A., Roosevelt U.
M.S., Rush U.
Surg. Nsg.

Close, Timothy P.
M.D., U. of I. at Chicago
Di. Rad. & Nuc. Med.

Co, Licencia L.
M.D., Philippine Is.
Anesthes.(MTSN)

Cocadiz, Norval
M.D., Philippine Is.
Anesthes.(CH)

Codini, Michele A.
M.D., Italy
Int. Med.

Cohen, Barney I.
J.D., DePaul U.
Hlth. Syst. Mgt.

Cohen, Fredric
Ph.D., SUNY at Stony Brk. H.S. Ctr.
Physiol.

Cohen, Gerald
M.D., U. of I. at Chicago
Int. Med.(SWED)

Cohen, Herbert T.
M.D., Jefferson Med. Col. of Phila.
Int. Med.

Cohen, Maynard
M.D., Wayne St. U.
Ph.D., U. of Mn. of Mnpl. St. Paul
Neuro. Sci., Biochem.

Coker, Steven B.
M.D., U. of Okla.
Neuro. Sci.(CH)

Colandrea, Michael A.
M.D., U. of I. at Chicago
Int. Med.

Cole, David R.
M.D., Queens U. at Kingston, Canada
Int. Med.(CH)

Cole, Edmond
Ph.D., Purdue U.
Biochem., Int. Med.

Cole, Warren H.
M.D., U. of Washington
Gen. Surg.

Coleman, Cedric L.
M.D., U. of I. at Chicago
Int. Med.

Coleman, Henry N.
M.D., U. of Al. in Birmingham
Int. Med.

Colgan, James A.
Ph.D., Columbia U.
Anat.

Colletti, Mary Ann
M.S., Rush U.
Med. Nsg.

Collins, Elbert
M.D.
Int. Med.

Collins, James J.
M.D., Rush U.
Int. Med.

Colmey, Thomas
M.D., Georgetown Col.
Ortho. Surg.(CH)

Como, Peter G.
M.A., U. of Texas at El Paso
Psych. & Soc. Sci.

Comrie, James M.
M.D., Northwestern U.
Int. Med.(CH)

Conlon, Kevin
M.D., Rush U.
Int. Med.

Connelly, Robert
M.A., Northern Illinois U.
Rel. Hlth. Prg.

Conrad, Daniel E.
M.D., U. of I. at Chicago
Int. Med.(SWED)

Coogan, Jr., Thomas J.
M.D., St. Louis U.
Int. Med.

Cook, David
M.D., Chicago Med. Sch.
Di. Rad. & Nuc. Med.

Cook, John Q.
M.D., Northwestern U.
Gen. Surg.

Cook, Kathryn
M.S., Rush U.
Psychi. Nsg.

Cook, Suzanne R.
M.D., Loyola U. of Chicago
Ped.(MTSN)

Coon IV, John S.
M.D., Northwestern U.
Ph.D., U. of Chicago
Pathology, Im./Micro.

Cooperman, Suzanne K.
M.D., Chicago Med. Sch.
Psychi.

Corbett, Lionel
M.D.
Psychi.

Corcos, Daniel M.
Ph.D., U. of Oregon
Neuro. Surg.

Coren, Debra A.
M.S., Rush U.
Surg. Nsg.

Corey, Jacqueline
M.D., U. of I. at Chicago
Oto. & Bronc.

Corrigan, James V.
M.A., Loyola U. of Chicago
Relig. & Hlth.

Corrin, Lesley
Neuro. Sci.

Cortez-Lapera, Myrna
M.D., Philippine Is.
Ped.

Corwin, Howard L.
M.D., Mt. Sinai Sch. Med. of CUNY
Int. Med.

Corzatt, Richard D.
M.D., U. of I. at Chicago
Ortho. Surg.(CH)

Costello, Kathy
M.S., Rush U.
Med. Nsg.

Cottrell, Jr., Thomas L.
M.D., Loyola U. of Chicago
Urology

Cottrell, Thomas L. C.
M.D., Loyola U. of Chicago
Urology

Cotts, William G.
M.D., Northwestern U.
Int. Med.(COMM)

Couden, Trevert
M.D., Northwestern U.
Ortho. Surg.

Coultrip, Laura L.
M.D., George Washington U.
Ob. & Gyne.

Counte, Michael
Ph.D., U. of I. at Urbana
Hlth. Syst. Mgt., Psych. & Soc. Sci.

Coupet, Edourd
M.D., U. of I. at Chicago
Ob. & Gyne.

Crane, Ernest J.
M.B.A., U. of Chicago
Hlth. Syst. Mgt.

Crane, Marianna L.
M.S., U. of I. at Chicago
Comm. Hlth. Nsg.

Crawford, Jr., John
M.D.
Ped.

Cripe, Larry D.
M.D., Rush U.
Int. Med.

Crosby, Daniel L.
M.D., Municipal U. of Omaha
Gen. Surg.

Crunk, Dennis L.
M.D., Loma Linda U.
Fam. Prac.

Cruz, Sidney R.
M.D., Philippine Is.
Int. Med.(SWED)

Cuadros, Hugo F.
M.D., Bolivia
Int. Med.(CH)

Cukr, Penelope
M.S.N., Wayne State U.
Comm. Hlth. Nsg.

Cullen, Marc
M.D., Brown U.
Gen. Surg.

Cullinan, John
M.D., U. of I. at Chicago
Fam. Prac.(COPL)

Cummings, Corenna C.
Ph.D., U. of Pittsburgh
Hlth. Syst. Mgt.

Cupeles, Angela B.
M.D., Tufts U.
Ped.

Curl, George G.
M.D., U. of Chicago
Urology(WSUB)

Currie, Andrew G.
M.M., Northwestern U.
Hlth. Syst. Mgt.

Currie, Robert E.
M.D., U. of I. at Chicago
Fam. Prac.(GBUR)

Curry, Patrick J.
M.B.A., DePaul U.
Hlth. Syst. Mgt.

Curtin, John W.
M.D., U. of Pittsburgh
Pls. & Rec. Surg.

Cybulski, George R.
M.D., U. of I. at Chicago
Neuro. Surg.

Czerniejewski, Richard
M.D., New York U.
Ped.

Czervionke, Leo F.
M.D., Chicago Med. Sch.
Di. Rad. & Nuc. Med.

D'Angelo, Charles M.
M.D., U. of Vermont
Neuro. Surg.

D'Silva, Joseph L.
M.D.
Ortho. Surg.

Da Valle, Michael J.
M.D., Loyola U. of Chicago
Cv.T. Surg.

Dabek, Theresa M.
M.D., Rush U.
Fam. Prac.

Dado, Jr., Ralph N.
M.D., Loyola U. of Chicago
Ophthalmology(CH)

Dahab, Jean
M.S., Northern Illinois U.
Geront. Nsg.

Dainauskas, John R.
M.D., Loyola U. of Chicago
Pathology

Dalal, Suniti
M.D., India
Ob. & Gyne.(MTSN)

Dalessandro, Alan
D.D.S., Loyola U. of Chicago
Gen. Surg.

Dall, Carol J.
M.S., U. of I. at Chicago
Geront. Nsg.

Dammers, Warren R.
M.D., U. of I. at Chicago
Ped.

Dampier, Mary F.
M.D.
Int. Med.

Damptz, Robert E.
M.D., Loyola U. of Chicago
Psychi., Ped.

Dangles, George J.
M.D., U. of I. at Chicago
Ophthalmology(CH)

Daniel, Evelyn
M.S., U. of Md. Balt. Prof. Sch.
Surg. Nsg.(GRNT)

Daniel, Ronald O.
M.D., New York Med. Col.
Ob. & Gyne.

Daniele, Alice D.
M.D., U. of I. at Chicago
Int. Med.

Daniher, Frances A.
M.B.A., Cornell U.
Hlth. Syst. Mgt.

Danko, Henry
M.D., Rush U.
Int. Med.

Daugherty, Steven R.
B.A., Kalamazoo Col.
Psych. & Soc. Sci.

Daugherty, William
M.D., U. of Cincinnati
Neuro. Sci.

Daum, Thomas D.
M.D., U. of Kentucky
Fam. Prac.(CH)

Dauphin, Margaret
M.D., U. of I. at Chicago
Int. Med.

Dauro-Jokich, Cheryl
M.S., Rush U.
Surg. Nsg.

DaValle, Michael J.
M.D., Loyola U. of Chicago
Cv.T. Surg.

David, Paul P.
M.D., Germany
Psychi.(CH)

Davidson, Michael
M.D., Ohio St. U.
Int. Med.

Davis, Jr., Carl B.
M.D., U. of Chicago
Gen. Surg.

Davis, Andrew M
M.D., U. of Chicago
Int. Med.

Davis, Floyd A.
M.D., U. of Pennsylvania
Neuro. Sci.

Davis, Phyllis
M.S., DePaul U.
Med. Nsg.

Davis, Zev
M.D., Israel
Cv.T. Surg.(CH)

Davison, Daniel T.
D.O., Michigan State U.
Fam. Prac.

Dawkins, Marva
Ph.D., Florida St. U.
Psych. & Soc. Sci.

Day, Donald W.
M.D., U. of I. at Chicago
Ped.

DeJong, George
M.D., Michigan State U.
Int. Med.

DeLaria, Giacomo
M.D., Tufts U.
Cv.T. Surg.

DeLashmutt-Robbins, M.
M.B.A., George Washington U.
Hlth. Syst. Mgt.

DeLeeuw, Henry W.
M.D., U. of Chicago
Gen. Surg.

DeMarco, Carl J.
M.D., U. of I. at Chicago
Urology(CH)

DeMonterice, Donna
M.N., U. of Pittsburgh
Ob. & Gyne. Nsg.

dePeyster, Frederick
M.D., Rush Med. Col.
Gen. Surg.

DeRose, William F.
M.D., Northwestern U.
Int. Med.(CH)

De Sa Pereira, E.
M.D., Brazil
Psychi.

DeStefano, Michael D.
M.D., Rush U.
Ped.(CH)

DeTakats, Geza
M.D., Hungary
Cv.T. Surg.

deToledo-Morrell, L.
Ph.D., McMaster U., Canada
Psych. & Soc. Sci., Neuro. Sci.

DeWald, Ronald L.
M.D., U. of I. at Chicago
Ortho. Surg.

DeYoung, Henry D.
M.D., U. of I. at Chicago
Int. Med.

Deam, Malcolm
M.D., Northwestern U.
Int. Med.(MTSN)

Dean-Baar, Susan
M.S., Rush U.
Med. Nsg.

Dean, Robert K.
M.D., Ohio St. U.
Pls. & Rec. Surg.(MTSN)

Debre, Michael W.
M.D., Loyola U. of Chicago
Int. Med.(CH)

Dederick, Margarida M.
M.D., Brazil
Psychi.

Dekker, Anthony
D.O., Michigan State U.
Fam. Pract., Ped.

Dekoning, Bernard L.
M.D., Rush U.
Fam. Pract.

Del Campo, Jose A.
M.D., Cuba
Psychi.

Del Granado, Alfonso
M.D., Bolivia
Ob. & Gyne.(MTSN)

Delach, Anthony C.
M.D., Mexico
Ped.(CH)

Delaconcha, Jose
M.D., Mexico
Ped.(MTSN)

Delacruz, Marco
M.D., U. of I. at Chicago
Fam. Pract.

Deleon, Serafin
M.D., Philippine Is.
Cv.T. Surg.(MTSN)

Delneky, Joyce A.
M.D., Mexico
Fam. Pract.(SWED)

Delneky, Peter M.
M.D., Mexico
Ob. & Gyne.

Demange, Gilbert R.
M.D., Loyola U. of Chicago
Gen. Surg.(COMM)

Demidow, Ludmilla
M.S., U. of I. at Chicago
Biochem., Rel. Hlth. Prg.

Denes, Pablo
M.D., Argentina
Int. Med.

Dennis, Richard F.
M.D., U. of I. at Chicago
Ophthalmology

Dennis, Vernon L.
M.D., U. of Alberta, Canada
Ob. & Gyne.(SWED)

Dent, Susan V.
M.D., U. of I. at Chicago
Fam. Pract.(CH)

Dent, Thomas
M.D., U. of I. at Chicago
Fam. Pract.(CH)

DePhillips, George R.
M.D., Rush U.
Gen. Surg.

Deppe, Gunter
M.D., Germany
Ob. & Gyne.(MTSN)

Derman, Gordon H.
M.D., Rush U.
Pls. & Rec. Surg.

Derman, Sheila K.
M.S., U of Michigan
Rel. Hlth. Prg.

Desai, Renuka
M.B.B.S., India
Ped.

Deters, Curtis F.
M.D., Case Western Reserve U.
Ophthalmology(COMM)

Detweiler, Glenn L.
B.S., U. of Miami
Rel. Hlth. Prg.

Deutsch, Thomas A.
M.D., Rush U.
Ophthalmology

Deutsch, William E.
M.D., U. of I. at Chicago
Ophthalmology

Devetski, Robert
M.D., Indiana Central U.
Int. Med.

Devitt, John J.
M.D., Marquette U.
Fam. Pract.(CH)

Devlin, Michael F.
M.D., U. of Pittsburgh
Anesthes.

Deziel, Daniel J.
M.D., U. of Mn. of Mnpl. St. Paul
Gen. Surg.

DiCostanzo, Camille
M.S., Rush U.
Obstetrics & Gynecology Nsg.

DiFilippo, Mary E.
M.D., Loyola U. of Chicago
Int. Med.(CH)

DiFilippo, Nicholas
D.O., Chgo Col. Osteo. Med.
Internal Medicine (CH)

Diamond, Eugene F.
M.D., Loyola U. of Chicago
Ped.

Diamond, Paul H.
M.D., Vanderbilt U.
Int. Med.

Diamond, Peter S.
M.D., Loyola U. of Chicago
Int. Med.(CH)

Dickens, Bernard
M.B.A., Xavier U.
Hlth. Syst. Mgt.

Dickerson, Margaret M.
D.O., Phila. Col. Osteo. Med.
Di. Rad. & Nuc. Med.

Dieschbourg, Janice
M.D., Loyola U. of Chicago
Di. Rad. & Nuc. Med.

Diffenbaugh, Willis G.
M.D., Northwestern U.
Gen. Surg.

DiGianfilippo, Anthony
M.D., U. of I. at Chicago
Neuro. Surg.

DiGiulio, Thomas A.
M.D., Rush U.
Ob. & Gyne.

Dillon, Charles D.
M.D., Georgetown U.
Int. Med.

Dillon, Paula
M.S.N., U. of I. at Chicago
Med. Nsg.

Dimiceli, Salvatore A.
M.D., Loyola U. of Chicago
Gen. Surg. (WSUB)

Dinsmore, Charles E.
Ph.D., Brown U.
Anat.

Dishno, Judy
M.S., Northern Illinois U.
Comm. Hlth. Nsg.

Ditzian-Kadanoff, Ruth
M.D., U. of I. at Chicago
Int. Med.

Dix-Sheldon, Deborah
M.S. Northern Illinois U.
Med. Nsg.

Djordjevich, Ljubomir
Ph.D., I.I.T.
Anesthes.

Dmowski, W. Paul
M.D., Poland
Ph.D., Med. Col. of Georgia
Ob. & Gyne.

Dochios, Mary
M.D., Hahnemann Med. Col.
Ped.(CH)

Dohse, David A.
D.O., Chgo. Col. Osteo. Med.
Fam. Pract.

Dolan, Thomas E.
M.D., U. of Southern Ca.
Ob. & Gyne.

Dolecek, Therese
M.S., Ohio St. U.
Prev. Med., Rel. Hlth. Prg.

Dolezal, Edward G.
M.D., U. of I. at Chicago
Ophthalmology

Dollens, Carol
M.S.N., Northern Illinois U.
Surg. Nsg.

Dommers, Jr., Martin P.
M.D., U. of I. at Chicago
Di. Rad. & Nuc. Med.

Domont, Lawrence A.
M.D., George Washington U.
Int. Med.(GRNT)

Donahue, Edward J.
M.D., Temple U.
Gen. Surg.

Donaldson, Sue
Ph.D., U. of Washington
Med. Nsg., Physiol.

Doncheff, Iwan
M.D., Germany
Anesthet.(CH)

Donnally, Debra
M.S.N., Pa. St. U.
Pediatric Nsg.

Donovan, Keiren C.
M.D., Med. Col. Ohio at Toledo
Int. Med.

Donovan, Marilee
Ph.D., U. of Pittsburgh
Med. Nsg.

Donovan, William H.
M.D., Ohio St. U.
Ob. & Gyne.

Doolas, Alexander
M.D., U. of I. at Chicago
Gen. Surg.

Doshi, Mukesh
M.B.B.S., India
Ped.(CH)

Dougherty, Terence J.
Ph.D., U. of Detroit
Im./Micro.

Douglas, Gilbert W.
M.D., Chicago Med. Sch.
Gen. Surg. (GBUR)

Dourdourekas, Demetrio
M.D., Greece
Int. Med.

Douvas, Stavros
M.D., Greece
Ob. & Gyne.

Dow, James W.
M.D., Tufts U.
Int. Med.

Dowling, Harry F.
M.D., George Washington U.
Int. Med.

Dowling, Rebecca
Ph.D., U. of Mo.-Columbia
Rel. Hlth. Prg.

Dozier, Emanuel V.
M.D., U. of I. at Chicago
Int. Med.(GRNT)

Draths, Kathleen G.
M.D., Chicago Med. Sch.
Di. Rad. & Nuc. Med.

Driscoll, Thomas P.
M.D., Loyola U. of Chicago
Ped.(CH)

Druker, Robert
M.A., U. of Southern Ca.
Rel. Hlth. Prg.

Du Clos, Terry W.
M.D.
Int. Med.

Dubin, Alvin
M.S., CUNY Brooklyn Col.
Biochem.

Dubner, Harold H.
M.D., Rush Med. Col.
Ph.D., U. of Chicago
Psychi.

Duda, David
M.S., Rush U.
Psychi. Nsg.

Duda, Francis J.
M.D., U. of I. at Chicago
Ped.(MTSN)

Dudiak, Christine M.
M.D., U. of Wi.-Madison
Di. Rad. & Nuc. Med.

Duffy, Catherine
M.S., Northern Illinois U.
Surg. Nsg.

Dugas, Jeffrey
M.D., Rush U.
Int. Med.

Duman, Bonnie J.
M.D., U. of I. at Chicago
Di. Rad. & Nuc. Med.

Dumbovic, Nives
M.D., Yugoslavia
Ped.

Dumitru, Ion
M.D., Rumania
Ob. & Gyne.(MTSN)

Dunea, George
M.B.B.S., Australia
Int. Med.

Dunlop, John T.
M.D., Johns Hopkins U.
Int. Med.

Dunne, Thomas C.
M.D.
Neuro. Sci.

Duque, Adoracion
M.D., Philippine Is.
Anesthet.(MTSN)

Duret, Edouad
M.D., Haiti
Gen. Surg.(MTSN)

Durica, Thomas E.
Ph.D., Loyola U. of Chicago
Anat.

Dwan, Francis
M.D., Loyola U. of Chicago
Gen. Surg.(WSUB)

Dwarakanathan, Arcot A.
M.B.B.S., India
Prev. Med., Int. Med.

Dwass, Golda
M.N., Emory U.
Ob. & Gyne. Nsg.

Dwyer, William
M.D., Rush U.
Pathology

Dy, Deana L.
M.D., Philippine Is.
Im./Micro., Ped.(GRNT)

Dy, Johnson
M.D., Philippine Is.
Ob. & Gyne.(CH)

Dybas, Linda
M.A., San Francisco St. U.
Anat.

Dye, Jr., William S.
M.D., Northwestern U.
Cv.T. Surg.

Earle, Richard H.
M.D., Chicago Med. Sch.
Int. Med.(CH)

Earles, Rene M.
B.S., Howard U.
Dermatology

Eastman, Charmane
Ph.D., U. of Chicago
Psych. & Soc. Sci.

Ebenhoeh, Patrick E.
M.D., Loyola U. of Chicago
Psychi.

Eberling, Jan
M.D., Germany
Fam. Prac.(GRNT)

Ebersman, Donald S.
Ph.D., U. of Iowa
Pharmacology

Ebie, Nyambi
M.D., Northwestern U.
Int. Med.(BETH)

Ecanow, Bernard
Ph.D., U. of Mn. of Mnpl. St. Paul
Pharmacology

Eckenfels, Edward J.
Prev. Med.

Economou, Peter G.
M.D., Hahnemann Med. Col.
Int. Med.

Economou, Steven G.
M.D., Hahnemann Med. Col.
Gen. Surg.

Edwards, Bruce
M.A., Central Michigan U.
Rel. Hlth. Prg.

Edwards, John H.
M.D.
Psychi.

Edwards, Lauren
M.S., U of Michigan
Med. Nsg.

Edwards, Lynn M.
M.A., Northern Illinois U.
Int. Med.

Egel, Robert T.
M.D., Chicago Med. Sch.
Neuro. Sci, Ped.(CH)

Eghrari, Faramarz
M.D., Iran
Urology(MTSN)

Eisenberg, Brenda R.
Ph.D., U.K.
Physiol., Pathology

Eisenberg, Robert
Ph.D., U.K.
Physiol.

Ekbal, Shahid S.
M.B.B.S., Pakistan
Urology

Eklund, Elizabeth A.
M.D., Rush U.
Fam. Prac.

Faculty Alphabetical List

El Ganzouri, Abdel R.
M.B.,B.Ch., Egypt
Anesthes.

El-Ali, Maad
M.D., Syria
Ped.(CH)

El-Diwany, Seham F.
M.B.B.Ch., Egypt
Ped.

Elam, Harry P.
M.D., Loyola U. of Chicago
Ped., Prev. Med.

El-Baz, Nabil M. I.
M.D., Egypt
Anesthes.

Ellis, Nancy
M.S.N., U. of I. at Chicago
Psychi. Nsg.

Ellison, Maceo
M.D., U. of I. at Chicago
Int. Med.(GRNT)

Ellor, Janet
M.S., SUNY at Buffalo
Geront. Nsg.

Elmer, Russel E.
M.D., Chicago Med. Sch.
Gen. Surg.(SWED)

Elpern, Ellen H.
M.S., U. of Wi.-Madison
Med. Nsg.

Elrad, Haim
M.D., Israel
Ob. & Gyne.(MTSN)

Ely, Beth Ann
M.S., U. of Md. Baltimore Co.
Pediatric Nsg.

Embar, Rama
M.B.B.S., India
Ped.

Epstein, Avrum J.
M.D., Chicago Med. Sch.
Di. Rad. & Nuc. Med.(SKVH)

Epstein, Phillip S.
M.D., U. of Chicago
Psychi.

Epstein, Randy J.
M.D., Rush U.
Ophthalmology

Epstein, Robert B.
M.D., U. of I. at Chicago
Int. Med.

Erickson, Stephen E.
M.D., U. of Utah
Psychi.

Eriksen, Ronald G.
M.D., U. of I. at Chicago
Ped.

Erlenborn, James
M.D., Loyola U. of Chicago
Int. Med. (CDH)

Ertl, John W.
M.D., Hungary
Gen. Surg.(COMM)

Ertle, James O.
M.D., Switzerland
Dermatology

Esmond, Truman H.
M.S., U. of I. at Chicago
Hlth. Syst. Mgt.

Evans, Thomas A.
M.D., Loyola U. of Chicago
Urology(CH)

Evenhouse, Henry J.
M.D., Northwestern U.
Ob. & Gyne.(CH)

Exum, Dolores
M.S.W., U. Of I. at Urbana
Psych. & Soc. Sci., Prev. Med.

Eybel, Carl E.
M.D., U. of I. at Chicago
Int. Med.

Eytan, Serge S.
M.D., Israel
Neuro. Sci.

Erzri, Marilyn
M.D., In. U.-Purdue U. at Indpl.
Int. Med.

Faber, L. Penfield
M.D., Northwestern U.
Cv.T. Surg.

Fagan, Kathleen M.
M.D., Case Western Reserve U.
Int. Med.(MTSN)

Farag, Wadia
M.S., U. of Nebr. Med. Ctr.
Rel. Hlth. Prg.

Farago, Peter J.
M.D., Michigan State U.
Int. Med.

Farber, Steven S.
D.O., Chgo. Col. Osteo. Med.
Int. Med.

Farbstein, Samuel A.
M.D., Chicago Med. Sch.
Int. Med.

Farmans, Michael S.
M.D., Chicago Med. Sch.
Ob. & Gyne.(CH)

Fassbender, Hans G.
M.D., Germany
Pathology

Fawcett, Jan A.
M.D., Yale U.
Psychi.

Federer, H. Clark
M.D., Texas Tech. U.
Gen. Surg.

Fedorchik, Joseph J.
M.D., U. of Michigan
Cv.T. Surg.

Feimer, Peter P.
D.D.S., Loyola U. of Chicago
Gen. Surg.

Feinhandler, Harold S.
M.D., U. of I. at Chicago
Ophthalmology(MTSN)

Fekete, Agnes E.
M.A., Central Michigan U.
Rel. Hlth. Prg.

Feldman, Bernard
M.D., New York U.
Fam. Prac.(CH)

Feldman, Howard S.
Ph.D., Purdue U.
Psych. & Soc. Sci.

Feldman, Sandy T.
M.D.
Ophthalmology

Feldmann, Theodore B.
M.D., U. Louisville
Psychi.(MTSN)

Felix, Robert E.
M.D., Cornell U. Med. Ctr.
Int. Med.

Fell, Egbert
M.D., U. of Chicago
Gen. Surg.

Felsenthal, Susan
M.D., Chicago Med. Sch.
Int. Med.

Feria, Araceli I.
M.D., Philippine Is.
Fam. Prac.(CH)

Fernandez, Rafael
M.D., Cuba
Ob. & Gyne.(CH)

Ferrel, James A.
M.D., U. of Cincinnati
Fam. Prac.(CH)

Fick, Bruce D.
M.D., U. of I. at Chicago
Ophthalmology(COMM)

Fiedel, Barry
Ph.D., Syracuse U.
Im./Micro.

Field, Tina M.
M.S., Rush U.
Hlth. Syst. Mgt.

Fields, Constance D.
M.D., Northwestern U.
Int. Med.

Figel, Mary Ann
M.D.
Anesthes.

Fine, Richard E.
M.D., Med. Col. of Georgia
Gen. Surg.

Fingerhut, Morton H.
M.D., Northwestern U.
Gen. Surg.(GRNT)

Fink, James R.
M.D., Loyola U. of Chicago
Fam. Prac.(SWED)

Fink, Peter
M.D., Johns Hopkins U.
Psychi., Ped.

Finkelstein, Adrian
M.D., Israel
Psychi.

Finola, George C.
M.D., U. of I. at Chicago
Ob. & Gyne.

Firlit, Robert
M.D., Loyola U. of Chicago
Urology(CH)

Firlit, Sharon
Ph.D., U. of I. at Chicago
Surg. Nsg.

Firman, Sue
M.S., U. of I. at Chicago
Obstetrics & Gynecology Nsg.

Fischer, Conrad S.
M.D., Chicago Med. Sch.
Int. Med.(COMM)

Fischer, Tessa
M.D., Georgetown U.
Fam. Prac.(COMM)

Fisher, Raymond L.
M.D., Loyola U. of Chicago
Int. Med.(MTSN)

Fishman, Don R.
M.D., Rush U.
Gen. Surg.

Fiske, Marian
M.S.N., U. of I. at Chicago
Psychi. Nsg.

Fisli, Barbara A.
M.S., Rush U.
Med. Nsg.

Fister, James S.
M.D., U. of I. at Chicago
Ortho. Surg.

Fitchett, George
D.Min., U. of Chicago
Relig. & Hlth.

Fitzgerald, Karen
Ph.D., Northwestern U.
Im./Micro.

Fitzgibbons, James P.
M.D., Loyola U. of Chicago
Ob. & Gyne.(SWED)

Flacco, Richard M.
M.D., Hahnemann Med. Col.
Fam. Prac.(GBUR)

Flanagan, George C.
M.D., U. of Chicago
Int. Med.

Flanagan, Malachi J.
M.D., Loyola U. of Chicago
Urology

Flanagan, Thomas
M.D., Michigan State U.
Int. Med.

Flanigan, Robert M.
M.D., Marquette U.
Gen. Surg.

Flannery, Ann M.
M.D., Rush U.
Neuro. Surg.

Flinger, Denise J.
M.D., Northwestern U.
Fam. Prac.(CH)

Flood, Suzanne
M.S., U. of Arizona
Med. Nsg.

Floro, Lourdes D.
M.D., Philippine Is.
Ped.(CH)

Flynn, Jr., John F.
M.D., Northwestern U.
Ortho. Surg.(CH)

Foley, Edward C.
M.D., U. of Chicago
Fam. Prac.

Fondiller, Shirley H.
Ed.D., Columbia U.
Comm. Hlth. Nsg.

Foody, James J.
M.D., U. of Chicago
Int. Med.

Forbes, Janet Y.
M.D., U. of I. at Chicago
Int. Med.

Ford, Erica W.
M.B.B.Ch., U.K.
Anesthes.

Fordham, Ernest W.
M.D., U. of I. at Chicago
Di. Rad. & Nuc. Med.

Fortin, Susan
M.S., Rush U.
Surg. Nsg.

Foster, Dale
M.D.
Int. Med.

Foth, Richard P.
M.D., Northwestern U.
Int. Med.(COPL)

Fournier, Linda
M.S., U. of I. at Chicago
Obstetrics & Gynecology Nsg.

Foust, Robert J.
M.D., U. of South Dakota
Di. Rad. & Nuc. Med.

Fox, Jacob H.
M.D., U. of I. at Chicago
Neuro. Sci., Int. Med.

Fox, Juanita J.
M.S., Rush U.
Med. Nsg.

Franczyk, Elizabeth
M.D., Poland
Ped.

Frank, Minnie
M.D., Wi. St. U.-Superior
Ped.

Frankenbach, James T.
B.S., Northern Illinois U.
Hlth. Syst. Mgt.

Franklin, James L.
M.D., Northwestern U.
Int. Med.

Frankovelia, Nicholas
M.D., U. of I. at Chicago
Fam. Prac.(CH)

Fredenberg, Mary F.
M.D., U. of Arizona
Dermatology

Fredland, Allan J.
M.D., Chicago Med. Sch.
Gen. Surg.(MTSN)

Fredrick, Earl
M.D., Howard U.
Int. Med.

Freed, Marc A.
D.O.
Ped.

Freedman, Philip
M.D., U.K.
Int. Med.

Fresco, Raul
M.D., Egypt
Ph.D., U. of I. at Chicago
Pathology(MTSN)

Frey, Jr., Charles
D.O., Chgo. Col. Osteo. Med.
Int. Med.

Frey, Michael J.
M.A., DePaul U.
Ped., Psych. & Soc. Sci.

Freyer, David R.
D.O.
Ped.

Friberg, Jan
M.D., Ph.D., Sweden
Ob. & Gyne.(MTSN)

Friberg, Siri I.
M.D., Sweden
Ob. & Gyne.(MTSN)

Fried, Peter
M.D., U. of I. at Chicago
Family Practice (CH)

Fried, Walter
M.D., U. of Chicago
Int. Med.

Friedberg, Stanton A.
M.D., Rush Med. Col.
Oto. & Bronc.

Friestad, Wayne S.
M.D., Loma Linda U.
Fam. Prac.

Frischer, Henri
M.D., Dominican Republic
Ph.D., U. of Chicago
Int. Med., Pharmacology

Froehlich, James
M.D., Rush U.
Anesthes.

Froiland, John L.
M.D., Northwestern U.
Fam. Prac.

Frost, John
M.D., U. of Pennsylvania
Int. Med.

Frownfelter, Donna L.
B.A., North Park Col.
Int. Med.

Fruth, Roberta
M.S., Rush U.
Med. Nsg.

Frymark, William B.
M.D., Marquette U.
Gen. Surg.(COMM)

Fuhrer, Jack
M.D., Rush U.
Int. Med.

Furth, Emma E.
M.S., Mass. Inst. of Tech.
Int. Med.

Gabriel, Bonnie L.
M.D., Med. Col. Ohio at Toledo
Int. Med.

Gadallah, Merit F.
M.D.
Int. Med.

Gagnon, James D.
M.D., Loyola U. of Chicago
Th. Rad.

Galanes, Susan E.
M.S., Rush U.
Med. Nsg.

Galante, Jorge O.
M.D., Argentina
Ortho. Surg., Anat.

Galbraith, William
M.A., U.K.
Int. Med.

Gale, Meryl L.
M.A., Roosevelt U.
Prev. Med.

Gallo, Linda
M.D.
Ped.

Galloway, Booker T.
M.D., Loyola U. of Chicago
Ob. & Gyne.(MTSN)

Faculty Alphabetical List

Galt, Raymond M. M.D., Northwestern U. Int. Med.	Gaye-Korenblit, Annick M.D., Belgium Ped.	Gill, Sukhjit M.B.B.S., India Int. Med.(GRNT)
Galvez, Carmencita M.D., Philippine Is. Ob. & Gyne.(CH)	Gdalan, Louis R.Ph., U. of I. at Chicago Int. Med., Pharmacology	Gilligan, William J. M.D., Northwestern U. Ortho. Surg.
Gamburg, Boris M.D., U.S.S.R. Ped.	Gehlmann, Louisa M. M.D., U. of Washington Dermatology	Ginda, Sunita J. M.B.B.S., India Ped.(CH)
Ganz, Mary D.O. Ped.	Geiger, Mildred L. M.D., Ohio St. U. Fam. Prac.(COMM)	Gingold, Walter M.D., Austria Fam. Prac.(CH)
Garcelon, Ann M.D., U of Ca.-Davis Int. Med.(MTSN)	Geittmann, William F. M.D., Northwestern U. Ob. & Gyne.	Girgis, Tawik F. M.D., Egypt Oto. & Bronc.(COMM)
Garcia, Carolyn L. M.D., Tufts U. Ob. & Gyne.	Geller, Steven M. M.D., U. of I. at Chicago Int. Med.	Girzadas, Daniel V. M.D., Loyola U. of Chicago Ortho. Surg.(CH)
Gardiner, Richard M.D., New York U. Di. Rad. & Nuc. Med., Anat.	Genge, Marianne M.S., Rush U. Surg. Nsg.	Gitelis, Steven M.D., Rush U. Ortho. Surg.
Gardner, H. Rex M.D., George Washington U. Di. Rad. & Nuc. Med., Ped.	Geremia, Glen K. M.D., Northwestern U. Di. Rad. & Nuc. Med.	Giuffre, Verlin W. B.S., I.I.T. Physiol., Int. Med.
Garibaldi, Abel M.D., Chile Cv.T. Surg.(CH)	Gernon, John T. M.D., U. of I. at Chicago Urology(SWED)	Glandon, Gerald L. Ph.D., U. of Washington Hlth. Syst. Mgt.
Garla, Renukadevi P. M.B.B.S., India Ped.	Gerolimatos, Spiridon M.D., U. of I. at Chicago Di. Rad. & Nuc. Med.	Glantz, Gale M.S., SUNY Downstate Med. Ctr. Comm. Hlth. Nsg.
Garland, John T. M.D., Johns Hopkins U. Int. Med.	Gersack, John R. M.D., In. U.-Purdue U. at Indpl. Urology(CH)	Glantz, Russell M.D., South Africa Neuro. Sci.
Garr, William R. M.D., Rush Med. Col. Int. Med.	Gerstad, Nancy A. M.D., U of Michigan Int. Med.	Glassman, Harold S. M.D., Chicago Med. Sch. Fam. Prac.(CH)
Garron, David C. Ph.D., U. of Chicago Psych. & Soc Sci.	Gerty, Francis J. M.D., Loyola U. of Chicago Psychi.	Gleicher, Norbert M.D., Israel Ob. & Gyne., Im./Micro.(MTSN)
Gartner, Richard F. M.D., U. of Ca.-Irvine Gen. Surg.	Gewurz, Anita M.D., Albany Med. Col. Im./Micro., Ped., Rel. Hlth. Prg.	Glick, Melvin M.D., Mexico Fam. Prac.(COMM)
Garvin, John S. M.D., U. of I. at Chicago Neuro. Sci., Psychi.	Gewurz, Henry M.D., Johns Hopkins U. Im./Micro., Ped., Int. Med.	Glickman, Irving A. D.D.S., U. of I. at Chicago Gen. Surg.
Garwacki, John H. M.D., Loyola U. of Chicago Fam. Prac.(CH)	Giangrasso, Michele M.A.M.S., U. of I. at Chicago Rel. Hlth. Prg.	Glickman, Paul B. M.D., Ph.D., U. of Chicago Int. Med.
Gasteyer, Theodore M.D., U. of Washington Int. Med.(CH)	Gibbons, Austin J. M.D., U. of I. at Chicago Pathology	Gnap, John J. M.D., Loyola U. of Chicago Fam. Prac.(CH)
Gavani, Uma D. M.B.B.S., India Ped.(CH)	Gibbons, William P. M.D., Loyola U. of Chicago Pathology	Gobel, Barbara M.S., Rush U. Med. Nsg.
Gavin, Frank D.D.S., Loyola U. of Chicago Gen. Surg.(CH)	Gibson, Lewis E. M.D., Johns Hopkins U. Ped.	Goel, Neelam M.B.B.S., India Ped.
Gavin, Patricia M. M.D., Rush U. Di. Rad. & Nuc. Med.	Gierl, Benedict L. M.D., U. of Wi.-Madison Psychi.	Goetz, Christopher M.D., Rush U. Neuro. Sci., Pharmacology
Gavron, Joseph P. M.D., Northwestern U. Oto. & Bronc.(CH)	Gigante, Joseph D. M.D., Loyola U. of Chicago Fam. Prac.(WSUB)	Gogan, William T. M.D., Ireland Fam. Prac.(WSUB)
Gawlik, Gerald M. M.D., Loyola U. of Chicago Int. Med.(CDH)	Gilbert, Warren S. M.D., Rush U. Fam. Prac.(WSUB)	Gohla, Margaret M. M.S., Rush U. Surg. Nsg.
Gawryl, Maria S. Ph.D., U. of Ct. Hlth. Ctr. Im./Micro.	Gilchrist, R. Kennedy M.D., Rush Med. Col. Gen. Surg.	Gokbudak, Helen M.S.N., Loyola U. of Chicago Geront. Nsg.

Gokhale, Sudhir M.
M.B.S., India
Psychi.(CH)

Golchini Shafa, M.
M.D., Iran
Psychi.(CH)

Gold, Henry O.
D.S., Loyola U. of Chicago
Pls. & Rec. Surg., Gen. Surg.

Goldberg, Hilda R.
M.D., Argentina
Ped., Neuro. Sci.

Goldberg, Arnold I.
M.D., U. of I. at Chicago
Psychi.

Goldberg, Gary
M.D., U. of I. at Chicago
Fam. Prac., Int. Med.(CH)

Golden, Harvey E.
M.D., Northwestern U.
Int. Med., Im./Micro.

Goldflies, Mitchell L.
M.D., U. of Chicago
Ortho. Surg.

Goldin, Marshall D.
M.D., U. of I. at Chicago
Cv. T. Surg.

Goldin, Milton
Ph.D., Chicago Med. Sch.
Pathology(MTSN)

Goldman, Gilbert M.
M.D., SUNY Downstate Med. Ctr.
Ped.

Goldstein, Maurice S.
M.D., Canada
Int. Med.

Gomez, Francisco
M.D., Spain
Ortho. Surg.

Good, Robert C.
M.S., DePaul U.
Hlth. Syst. Mgt.

Goodlatte, Joyce
M.D., U. of Vermont
Fam. Prac.

Goodman, Alan
M.D., U. of Washington
Di. Rad. & Nuc. Med.

Goodman, Harold
M.D., U. of I. at Chicago
Ped.(GRNT)

Goodman, Lawrence
M.D., Michigan State U.
Int. Med.

Goodman, Michelle
M.S., Rush U.
Surg. Nsg.

Goodmundson, Gail
M.A., U. of Iowa
Rel. Hlth. Prg.

Gorman, Paul N.
M.D., Rush U.
Int. Med.

Gotterer, Gerald S.
M.D., U. of Chicago
Ph.D., Johns Hopkins U.
Biochem., Int. Med.

Gottlieb, Emily
M.D., U. of I. at Chicago
Int. Med.(GRNT)

Gottlieb, Gerald L.
Ph.D., U. of I. at Chicago
Physiol.

Gottschalk, William
M.D., Belgium
Anesthes., Ob. & Gyne.

Gould, Victor E.
M.D., Argentina
Pathology

Goyette, Richard E.
M.D., Baylor Col. of Med.
Pathology

Grace, Diane
M.S., U. of I. at Chicago
Comm. Hlth. Nsg.

Graettinger, John S.
M.D., Harvard U.
Int. Med.

Graf, Edwin C.
M.D., Northwestern U.
Urology

Graf, Linda
M.S., U. of I. at Chicago
Obstetrics & Gynecology Nsg.

Graf, Ronald
M.S.N., Northern Illinois U.
Obstetrics & Gynecology Nsg.

Graham, James E.
M.D., U. of N.C., Chapel Hill
Ob. & Gyne.

Granadier, Robert J.
M.D., U. of Michigan
Ophthalmology

Gray, George
Ed.D., In. U.-Bloomington
Fam. Prac.

Grdina, David J.
Ph.D., U. of Kansas
Th. Rad.

Greeley, Paul W.
M.D., Northwestern U.
Pls. & Rec. Surg.

Green, Barbara J.
M.D.
Int. Med.

Green, Jerome G.
M.D., U. of I. at Chicago
Fam. Prac.(CH)

Greenberg, Mark L.
M.D., Dominican Republic
Ped.

Greenfield, George B.
M.D., Netherlands
Di. Rad. & Nuc. Med.(MTSN)

Greenspan, Benn J.
M.P.H., U. of Pittsburgh
Hlth. Syst. Mgt.

Gregory, Stephanie A.
M.D., U. of Pennsylvania
Int. Med.

Griffin, Karen A.
M.D., Rush U.
Int. Med.

Griffith, Thomas E.
M.D., U. of I. at Chicago
Oto. & Bronc.

Griffiths, Stephanie
M.D., Meharry Med. Col.
Ob. & Gyne.

Gronich, Joseph
M.D.
Int. Med.

Grossman, Aaron
M.D., U. of Chicago
Ped.

Grouse, Jan
M.D., U. of Washington
Fam. Prac.

Grouse, Lawrence D.
M.D., Ph.D., U. of Washington
Fam. Prac., Prev. Med.

Gruszka, Mary Ellen
M.D., Rush U.
Ped.

Gryfinski, Martin E.
M.D., Rush U.
Neuro. Surg.

Guerra, Rafael P.
M.D., Dominican Republic
Gen. Surg.(MTSN)

Guerrero-Tiro, Lourdes
M.D., Philippine Is.
Ped.

Guillory, Joel
M.D., La. St. U. Med. Ctr.
Cv. T. Surg.(CH)

Guinan, Patrick
M.D., Marquette U.
Urology

Guise, Gracia
M.S., U. of Michigan
Psych. & Soc. Sci., Psychi.

Gulanick, Mary Ellen
M.S.N., U. of I. at Chicago
Med. Nsg.

Gumpel, Janis A.
M.D., U. of I. at Chicago
Ob. & Gyne.(CH)

Gupta, Brahma N.
M.D., India
Int. Med.(BETH)

Gurevich, Boris
M.D., U.S.S.R.
Int. Med.(MTSN)

Guthrie, George E.
M.D., Loma Linda U.
Fam. Prac.

Gutmann, Cheryl M.
M.D., Rush U.
Psychi.

Gwynn, Vernon L.
M.D., U. of I. at Chicago
Gen. Surg.

Guziec, Janice A.
M.D., Rush U.
Int. Med.

Gvazdinskas, Loretta C.
B.S., U. of I. at Chicago
Rel. Hlth. Prg.

Gwyer, Fred V.
M.D., U. of Chicago
Psychi.

Ha, Yong Soo
M.D., Korea
Psychi.

Haag, Mary K.
M.D., Rush U.
Ob. & Gyne.

Faculty Alphabetical List

Haas, Brian D.
M.D., Rush U.
Ortho. Surg.

Haas, Joseph S.
M.D.
Ophthalmology

Haber, Meryl
M.D., Northwestern U.
Pathology

Hackett, John N.
M.D., U. of I. at Chicago
Ophthalmology(COMM)

Haerberlin, Jr., John B.
M.D., McGill U., Canada
Dermatology

Haeger, R. Ross
M.D., U. of I. at Chicago
Urology(WSUB)

Hagens, Walter E.
M.D., Northwestern U.
Ophthalmology(COMM)

Haggerty, Linda
M.S., Rush U.
Surg. Nsg.

Hahn, Jerome
M.D., U. of I. at Chicago
Prev. Med., Int. Med.

Hahn, Kyung O.
M.D., Korea
Ped.(CH)

Hahn, Robert
M.D., U. of Washington
Anesthes.(WSUB)

Haklin, Michael F.
Gen. Surg.

Haley, Ronald G.
M.D., Northwestern U.
Gen. Surg.

Hall, Yolanda F.
M.S., I.I.T.
Prev. Med.

Halper, Ira S.
M.D., Northwestern U.
Psychi.

Hamb, Aaron
M.D., Rush U.
Int. Med.

Hamburger, Ronald
M.D., U. of I. at Chicago
Int. Med.(CH)

Hamel, Loren B.
M.D., Loma Linda U.
Fam. Prac.

Hamilton, Richard A.
Ph.D., U of Michigan
Hlth. Syst. Mgt.

Hammerberg, Kim
M.D., U. of I. at Chicago
Ortho. Surg.

Hamming, Nancy A.
M.D., U. of I. at Chicago
Ophthalmology

Hammond, Artee F.
M.D., U. of I. at Chicago
Int. Med.

Hampton, Steven
Ph.D., U. of I. at Chicago
Ortho. Surg.

Hanashiro, Paul
M.D., U. of Md. Balt. Prof. Sch.
Int. Med.

Hanley, Michael
M.D., Baylor Col. of Med.
Int. Med.

Hanna, Wafik A.
M.B.,B.Ch., Egypt
Oto. & Bronc.

Hanneken, Anne Marie
M.D., Sch. of Med. of Marquette U.
Int. Med.

Hanni, John W.
M.D., U. of Chicago
Psychi.

Hansen, Nikolas F.
M.D.
Int. Med.

Hansfield, Scott
M.D.
Ob. & Gyne.

Hanson, Wayne R.
Ph.D., U. of Iowa
Th. Rad., Dermatology, Rel. Hlth. Prg.,
Pharmacology

Haralampopoulos, Harry
D.D.S., U. of I. at Chicago
Gen. Surg.(CH)

Harbour, Jeanne D.
M.D., France
Psychi.

Harding, Pauline N.
M.D., Creighton U.
Fam. Prac.(CDH)

Hark, Fred W.
M.D., U. of Iowa
Ortho. Surg.

Harris, Alan A.
M.D., U. of I. at Chicago
Int. Med., Prev. Med.

Harris, George F.
M.D., U. of I. at Chicago
Pediatrics(CH)

Harris, Jules E.
M.D., U. of Toronto, Canada
Int. Med., Im./Micro.

Harris, Leland
Ph.D., U. of Iowa
Biochem.

Harris, Mark I.
M.D., Chicago Med. Sch.
Neuro. Sci.

Harrison, William
Ph.D., U. of Mn. of Mnpl. St. Paul
Biochem., Neuro. Sci.

Hartman, Edith
M.D., Germany
Psychi.

Hartmann, J. Francis
Ph.D., Cornell U. Med. Ctr.
Neuro. Sci.

Harwood, Robert
M.D., U. of I. at Chicago
Fam. Prac.(CH)

Haskins, Nancy K.
M.D., U. of Ks. Med. Ctr.
Fam. Prac.

Hass, George
M.D., Harvard U.
Pathology

Hasse, Mary
M.S., Rush U.
Psychi. Nsg.

Hassel, Maria
M.S., Northern Illinois U.
Rel. Hlth. Prg.

Hasson, Harrith
M.B.,B.Ch., Egypt
Ob. & Gyne.

Hatcher, Daniel R.
M.D.
Int. Med.

Hatton, Jean
M.S., Rush U.
Geront. Nsg.

Hatzivasiliadis, A.
M.D., Greece
Ped.

Hauser, Robert G.
M.D., U. of Cincinnati
Int. Med.

Haussmann, R. Dieter
Ph.D., U. of Michigan
Hlth. Syst. Mgt.

Havdala, Henri S.
M.D., Egypt
Anesthes.(MTSN)

Hawkins, Judy
B.S., U. of Mississippi
Biochem., Rel. Hlth. Prg.

Hawryslia, Andrea
M.S.N., U. of Alabama
Med. Nsg.

Hay, William H.
M.D., U. of I. at Chicago
Fam. Prac.

Hayashi, James A.
Ph.D., U. of Wi.-Milwaukee
Biochem.

Hayes, Ernest
M.D., Meharry Med. Col.
Ob. & Gyne.

Hayes, Mary J.
D.D.S., U. of I. at Chicago
Gen. Surg.

Hayes, Roberta
Ph.D., U. of Co. H.S. Ctr.
Int. Med.

Hecht, Alan H.
M.D., Emory U.
Di. Rad. & Nuc. Med.(MTSN)

Heck, Charles V.
M.D., U. of I. at Chicago
Ortho. Surg.

Heck, Robert S.
M.D., Northwestern U.
Fam. Prac.(CH)

Heckel, V. Eileen
M.D., U. of Chicago
Anesthes.

Heckerling, Paul
M.D., New York U.
Int. Med.

Hedblom, Jr., Carl A.
M.D., Harvard U.
Int. Med.

Hegyvary, Csaba
M.D., Hungary
Int. Med., Physiol., Psychi.

Hegyvary, Sue
Ph.D., Vanderbilt U.
Med. Nsg., Psych. & Soc. Sci.

Heidelberger, Cheryl
M.D., Northwestern U.
Psychi.

Heil, Nancy Jo
M.D., U. of I. at Chicago
Ped.

Hejna, William F.
M.D., Washington U.
Ortho. Surg., Hlth. Syst. Mgt.

Helford, Michael
M.A., Loyola U. of Chicago
Fam. Prac.

Helgason, Cathy M.
M.D., Iceland
Neuro. Sci.

Helgman, David
M.D.
Ortho. Surg.

Heller, Floyd N.
M.D., U. of I. at Chicago
Anesthes.

Heller, Paul
M.D., Czechoslovakia
Int. Med.

Hemphill, Robert B.
M.D., U. of I. at Chicago
Fam. Prac.(WSUB)

Hemwall, Gustav A.
M.D., Loyola U. of Chicago
Fam. Prac.(WSUB)

Henderson, Glenda
M.B.A., Suffolk University
Hlth. Syst. Mgt.

Hendler, Samuel
M.D., U. of I. at Chicago
Psychi.

Hendrickson, Frank R.
M.D., Jefferson Med. Col. of Phila.
Th. Rad., Rel. Hlth. Prg.

Henikoff, Leo M.
M.D., U. of I. at Chicago
Ped. & Int. Med.

Herba, Edward J.
M.D., U. of Manitoba, Canada
Neuro. Sci.

Herbick, John M.
D.O., Chgo. Col. Osteo. Med.
Fam. Prac.

Hercule, Jacques
M.D., Spain
Ob. & Gyne.(MTSN)

Heredia, Raul
B.S., Mexico
Pathology(MTSN)

Herink, Karen
M.B.A., U. of Chicago
Hlth. Syst. Mgt.

Hernandez, Beatrice M.
M.D., U. of I. at Chicago
Int. Med.

Hernandez, Fernando
M.D.
Int. Med.

Herisko, Leonard
M.D., St. Louis U.
Int. Med.

Herwick, Paul Q.
M.D., George Washington U.
Gen. Surg.(COPL)

Hesseltine, H. Close
M.D., U. of Iowa
Ob. & Gyne.(CH)

Hewitt, Susan M.
M.S., Rush U.
Geront. Nsg.

Heymann, Mark
M.D., U. of I. at Chicago
Int. Med.(CDH)

Hickerson, Robert G.
M.D., U. of I. at Chicago
Fam. Prac.(GBUR)

Hilgard, James H.
M.D., St. Louis U.
Int. Med.

Hill, B. Jay
M.D., U. of Nebr. Med. Ctr.
Di. Rad. & Nuc. Med.

Hill, Colin
Ph.D., U.K.
Th. Rad.

Hill, David
M.S., S.I.U. at Carbondale
Rel. Hlth. Prg.

Hill, Linda C.
M.A., Northwestern U.
Rel. Hlth. Prg.

Hines, Jr., David W.
M.D., Rush U.
Int. Med.

Hinojosa, Jorge A.
M.D., Bolivia
Oto. & Bronc.(CH)

Hinrichs, Bradley
M.M., Northwestern U.
Hlth. Syst. Mgt.

Hirsch, Alan R.
M.D., U. of Michigan
Pathology, Neuro. Sci.

Hirsch, Daniel J.
M.D., Stanford U.
Int. Med.

Ho, Li O.
M.S., Illinois St. U.
Rel. Hlth. Prg.

Hobbs, John
M.D., U. of Mn. of Mnpl. St. Paul
Ob. & Gyne.

Hochstim-Carley, Nina
M.D., Albany Med. Col.
Int. Med.

Hodge, Robert G.
M.D., U. of Virginia
Gen. Surg.

Hodoval, Randall J.
D.D.S., Loyola U. of Chicago
Gen. Surg.(MTSN)

Hoeksema, Jerome
M.D., Wayne State U.
Urology

Hoeksema, Tammo
M.D., Netherlands
Cv.T. Surg.(CH)

Hoeltgen, Thomas M.
M.D., Northwestern U.
Int. Med.

Hoepner, Thomas J.
Ph.D., McMaster U., Canada
Neuro. Sci., Physiol.

Hoeppner, Walter F.
M.D., Rush Med. Col.
Int. Med.

Hogstrom, Valentine E.
M.D., Austria
Fam. Prac.(SWED)

Holinger, Lauren D.
M.D., Chicago Med. Sch.
Oto. & Bronc.

Holinger, Paul C.
M.D., Chicago Med. Sch.
Psychi.

Holland, John J.
M.D., Loyola U. of Chicago
Ophthalmology(GBUR)

Hollinger, Linda
M.S., U. of I. at Chicago
Geront. Nsg.

Hollinger, Walter
M.D., U. of Chicago
Int. Med.

Holmes, Aline
M.S.N., Catholic U. of America
Surg. Nsg.

Holmes, William H.
D.D.S., Northwestern U.
Gen. Surg.

Homan, Diane M.
M.D., In. U.-Purdue U. at Indpl.
Fam. Prac.

Hopkins, William C.
M.D., Northwestern U.
Gen. Surg.(CH)

Hopkins, William M.
M.D., Loyola U. of Chicago
Gen. Surg.(CH)

Horberg, David
D.D.S., U. of I. at Chicago
Gen. Surg.

Hori, Arthur R.
M.D., Loma Linda U.
Fam. Prac.

Hornick, Renata
M.S., U. of I. at Chicago
Pediatric Nsg.

Horowitz, Sandra W.
M.D., Jefferson Med. Col. of Phila.
Di. Rad. & Nuc. Med.

Horwitz, Irwin D.
M.D., U. of I. at Chicago
Oto. & Bronc.

Horwitz, Steven D.
M.D., Chicago Med. Sch.
Oto. & Bronc.

Hoshizaki, Robert J.
M.D., U. of I. at Chicago
Int. Med.

Hoskin, Francis C. G.
Ph.D., U. of Saskatchewan, Canada
Biochem.

Hotch, Deborah
Ph.D., Michigan State U.
Fam. Prac., Psych. & Soc. Sci.

Houser, Henry P.
Ph.D., Tulane U. of Louisiana
Psych. & Soc. Sci.

Hovde, Christian
Ph.D., Columbia U.
D.D., Sea.-West. Theo. Sem.
Relig. & Hlth., Anat., Psychi.

Faculty Alphabetical List

Howard-Ruben, Josie
M.S., Rush U.
Med. Nsg.

Howard, Diane M.
M.P.H.
Hlth. Syst. Mgt.

Howell, Roderic
M.D., Michigan State U.
Gen. Surg.(GBUR)

Howser, John W.
M.D., Northwestern U.
Gen. Surg.(WSUB)

Hoyer, Danuta K.
M.D., Rush U.
Int. Med.

Hoyme, Kermit
M.D., U. of I. at Chicago
Urology(CH)

Hoyt, Jeanette
M.S., Ohio St. U.
Rel. Hlth. Prg.

Huang, Jo Ann
M.S., Rush U.
Surg. Nsg.

Hubbard, Lincoln
Ph.D., Mass. Inst. of Tech.
Rel. Hlth. Prg.

Huber, Janice F.
M.D., Rush U.
Int. Med.

Huck, Bruce H.
M.D., Rush U.
Int. Med.

Huckman, Michael S.
M.D., St. Louis U.
Di. Rad. & Nuc. Med., Neuro. Sci.

Hudson, Edsel K.
M.D., U. of I. at Chicago
Int. Med., Prev. Med.

Huff, John P.
M.D., Ph.D., Loyola U. of Chicago
Int. Med.

Hughes, Cynthia J.
M.Ed., U. of I. at Urbana
Rel. Hlth. Prg.

Hughes, Thomas M.
M.D., Albany Med. Col.
Gen. Surg.

Hughes, W. Franklin
Ph.D., U. of I. at Chicago
Anat., Ophthalmology

Hughes, William F.
M.D., Johns Hopkins U.
Ophthalmology

Hui W. T., Peter
M.B., China-Taiwan
Gen. Surg.(MTSN)

Hullings-Kalina, Judy
M.A., Northwestern U.
Rel. Hlth. Prg.

Humowiecki, Stephen R.
M.D., Rush U.
Fam. Prac.(WSUB)

Huna-Calandra, Marcia
M.S., Rush U.
Comm. Hlth. Nsg.

Hunter, James A.
M.D., U. of I. at Chicago
Cv.T. Surg.

Hura, Joseph Z.
M.D., Mexico
Fam. Prac.

Hurd, Julie L.
M.D.
Psychi.

Hutchinson, Craig H.
M.D., Rush U.
Anesthes.

Hutchinson, James C.
M.D., U. of Alberta, Canada
Oto. & Bronc.

Hutchinson, Janice
M.D., U. of Cincinnati
Ped.

Hutchinson, Penny J.
M.D., U. of South Dakota
Gen. Surg.

Hvostik, George
M.D., Washington U.
Int. Med.

Hyde, John S.
M.D., U. of I. at Chicago
Ped., Im./Micro.

Ibrahim, Tahsin
M.B.,B.Ch., Egypt
Anesthes.

Ichniowski, Richard F.
M.D., Loyola U. of Chicago⁵
Ob. & Gyne.(CH)

Ihara, Dennis M.
M.D., Mexico
Ob. & Gyne.

Ilbawi, Michel N.
M.D., Lebanon
Cv.T. Surg.(MTSN)

Imandoust, Mohammad
M.D., Iran
Ped.

Imperial Hizon, A.
M.D., Philippine Is.
Ob. & Gyne.

Ing, Todd S.
M.B.B.S., Hong Kong
Int. Med.

Israel, Jeannette
M.D., Chicago Med. Sch.
Ped.

Ivankovich, Anthony
M.D., Yugoslavia
Anesthes.

Ivankovich, Olga
M.D., Yugoslavia
Fam. Prac.

Ivanoff, Jeffrey A.
M.D., U. of Iowa
Psychi.

Ivey, Carl L.
M.D., U. of I. at Chicago
Ped.

Jablon, Michael
M.D., Chicago Med. Sch.
Ortho. Surg.

Jacker, Michael
M.D.
Ortho. Surg.

Jackson, Jeffrey A.
M.D., Nrtheastern. Ohio U.
Psychi.

Jackson, Mary
M.A., New York U.
Geront. Nsg.

Jacob, Susan K.
Ph.D., Loyola U. of Chicago
Anat.

Jacobi, Angela
M.N., U. of Pittsburgh
Obstetrics & Gynecology Nsg.

Jacobs, Sharon B.
B.A., Clark U.
Psych. & Soc. Sci

Jacobson, Burton M.
M.D., U. of I. at Chicago
Int. Med.

Jacoby, Russell F.
M.D., New York U.
Int. Med.

Jaffe, Eugene J.
D.D.S., Loyola U. of Chicago
Gen. Surg.

Jagannathan, Subbia G.
M.B.B.S., India
Di. Rad. & Nuc. Med.(GBUR)

Jagmin, Jeffrey J.
M.D., Chicago Med. Sch.
Anesthes.

Jagodzinski, Benjamin
M.D., Loyola U. of Chicago
Ob. & Gyne.(CH)

Jaimovich, David
M.D.
Ped.

Jalowiec, Deborah A.
M.D.
Int. Med.

James, Norman M.
M.D., Cornell U. Med. Ctr.
Int. Med.

Jamieson, Robert W.
M.D., Northwestern U.
Gen. Surg.

Jamieson, Rodney A.
M.D., Northwestern U.
Int. Med.

Janik, Angela M.
M.S.N., Catholic U. of America
Med. Nsg.

Jankowski, Mary Ellen
M.S., Northern Illinois U.
Surg. Nsg.(SKVH)

Janus, Linda M.
M.D., Loyola U. of Chicago
Ob. & Gyne.

Jaojaroenkul, Thiti
M.D., Thailand
Int. Med.(GRNT)

Jarrett, Theodore A.
M.D., Israel
Ob. & Gyne.(MTSN)

Jassak, Patricia
M.S., Rush U.
Med. Nsg.

Javid, Javid I.
Ph.D., SUNY at Buffalo
Pharmacology

Javid, Hushang
M.D., Ph.D., U. of I. at Chicago
Cv.T. Surg.

Javid, Yaminali M.
M.B.B.S., India
Ped.

Jaworski, Stanley D.
M.B.A., Northeastern U.
Hlth. Syst. Mgt.

Jayaraman, Subramania
Ph.D., India
Rel. Hlth. Prg.

Jean-Jacques, Wilfred
M.D., Haiti
Int. Med.(MTSN)

Jeffrey, Rosemarie
M.D., Wayne State U.
Int. Med.

Jelinek, Richard C.
Ph.D., U of Michigan
Hlth. Syst. Mgt.

Jensen, Donald M.
M.D., U. of I. at Chicago
Int. Med.

Jensen, Thomas
Ph.D., U. of Cincinnati
Oto. & Bronc.

Jensik, Robert J.
M.D., U. of I. at Chicago
Cv.T. Surg.

Jensik, Stephen C.
M.D., U. of I. at Chicago
Ph.D., U. of I. at Chicago
Gen. Surg.

Jesser, Kenneth H.
M.D., Johns Hopkins U.
Int. Med.

Jette, David
Ph.D., U. of Calgary, Canada
Th. Rad., Rel. Hlth. Prg.

Jeyendran, Rajasingam
Ph.D., U. of Mn. of Mnpl. St. Paul
Ob. & Gyne.

Jezek, Judith
M.S., U. of Co.-Denver
Med. Nsg.

Jimenez, Francisco R.
M.D., Loyola U. of Chicago
Ob. & Gyne.

Jimenez, Luis A.
M.D., U. of I. at Chicago
Urology

Johnsen, Ruth E.
M.A., U. of Chicago
Comm. Hlth. Nsg.

Johnson, Barbara J.
M.S.N., DePaul U.
Med. Nsg.(GRNT)

Johnson, Bruce
M.D., Rush U.
Gen. Surg.

Johnson, Frank R.
M.D., Northwestern U.
Gen. Surg., Ped.

Johnson, Gene E.
M.D., In. U.-Purdue U. at Indpl.
Fam. Prac.(GBUR)

Johnson, Larry E.
M.D., U. of Chicago
Ph.D., Ca. Inst. of Tech.
Fam. Prac.

Johnson, Marilyn A.
Ph.D., U. of Pennsylvania
Psych. & Soc. Sci.

Johnson, Martha
M.N., U. of Pittsburgh
Obstetrics & Gynecology Nsg.

Johnson, Mary M.
M.D., U. of Michigan
Int. Med.

Johnson, Mary T.
M.S., Rush U.
Comm. Hlth. Nsg.

Johnson, Paul
Ph.D., U. of I. at Chicago
Psych. & Soc. Sci.

Johnson, Richard
M.D., Chicago Med. Sch.
Gen. Surg.(MTSN)

Johnston, Louis C.
Prev. Med.(GRNT)

Jones, Jr., Clay H.
M.D., Chicago Med. Sch.
Ped., Prev. Med.

Jones, Faith M.
Ed.D., Loyola U. of Chicago
Ob. & Gyne. Nsg.

Jones, Frank A. D.
M.D., Italy
Psychi.

Jones, Frank W.
M.D., Northwestern U.
Int. Med.

Jones, Jerry L.
M.P.H., U. of I. of Chicago
Int. Med.

Jones, Paul J.
M.D., Rush U.
Oto. & Bronc.

Jones, Philip N.
M.D., Washington U.
Int. Med.

Jones, Tanya Y.
M.D., U. of I. at Chicago
Fam. Prac.

Jordan, Patrick
M.D.
Anesthes.

Jordan, Robert A.
M.D., Rush U.
Ped.

Juaneza, Teresita
M.D., Philippine Is.
Anesthes.(MTSN)

Jubert, Andre V.
M.D., Howard U.
Gen. Surg.

Julian, Ormand C.
M.D., U. of Chicago
Ph.D., U. of Chicago
Cv.T. Surg.

Jung, Eduard
M.D., Germany
Ped.

Jurivich, Donald A.
D.O., Chgo. Col. Osteo. Med.
Int. Med.

Jursich, Catherine
M.S.N., Loyola U. of Chicago
Ob. & Gyne. Nsg.

Kaatz, Gary E.
M.B.A., U. of Chicago
Hlth. Syst. Mgt.

Kachmar, John
Ph.D., U. of Mn. of Mnpl. St. Paul
Biochem.

Kagan, Robert
M.D.
Gen. Surg.

Kaganiec, Irene G.
M.D., Germany
Int. Med.(CH)

Kaiser, June
M.S., Rush U.
Comm. Hlth. Nsg.

Kaizer, Herbert
M.D., Stanford U.
Ph.D., Boston U.
Ped., Im./Micro.

Kakodkar, Vasundhara
M.B.B.S., India
Ped.(CH)

Kale, Scott A.
M.D., Chicago Med. Sch.
Int. Med.

Kaliana, Muthukumaran
M.D., India
Ped.

Kallick, Charles
M.D., U. of I. at Chicago
Ped., Prev. Med., Int. Med.

Kaltman, Jerome
M.D., U. of Cincinnati
Ped.

Kaminski, Ernest J.
M.D., Northwestern U.
Int. Med.

Kaminski, Ludwig
M.D., Poland
Int. Med.(GRNT)

Kanaris, Mark
M.D., Greece
Fam. Prac.(CH)

Kang, Bann
M.D., Korea
Int. Med.(MTSN)

Kang, David S.
M.D., Ph.D., Korea
Ped.

Kanis, Lorraine J.
M.D., Wayne State U.
Int. Med.(CH)

Kao, Mark
Ph.D., U. of I. at Chicago
Th. Rad.

Kaplan, Harvey C.
M.D.
Di. Rad. & Nuc. Med.

Kaplan, Raymond L.
Ph.D., West Virginia U.
Im./Micro., Rel. Hlth. Prg., Int. Med.

Kaplan, Sidney
M.D., U. of I. at Chicago
Dermatology

Kapusta, George R.
M.D., U. of Washington
Gen. Surg.(CH)

Karacic, Barbara
M.S., U. of I. at Chicago
Obstetrics & Gynecology Nsg.

Karakusis, Peter H.
M.D., U. of Co. H.S. Ctr.
Int. Med.

Faculty Alphabetical List

Karas, Ilias N.
M.D., Greece
Oto. & Bronc.(CH)

Kark, Robert M.
F.R.C.P., U.K.
Int. Med.

Karlson, Karl J.
M.D., Brown U.
Cv.T. Surg.

Karpik, Alice G.
M.D., SUNY at Buffalo
Pathology, Ophthalmology

Karrow, Lee
M.S.W., Loyola U. of Chicago
Ob. & Gyne. Nsg.

Karthia, Ponnuni K. I.
Ph.D., Int'l Inst. Adv. Stud.
Th. Rad., Rel. Hlth. Prg.

Kasinath, Balakuntalam
M.B.B.S., India
Int. Med.

Kasper, Edward L.
D.D.S., Loyola U. of Chicago
Gen. Surg.(CH)

Kassriel, Robert S.
M.D., Columbia Col.
Prev. Med., Int. Med.

Katele, Elvyra
M.D., Lithuanian
Ped.(WSUB)

Kathan, Ralph H.
Ph.D., U. of I. at Chicago
Biochem.

Katz, Jack M.
M.D., Yeshiva U.
Di. Rad. & Nuc. Med.

Katz, Jerome I.
M.D., U. of I. at Chicago
Psychi.

Katz, Robert S.
M.D., U. of Md. Balt. Prof. Sch.
Int. Med.

Katz, Steven P.
M.D., U. of Nebr. Med. Ctr.
Pathology(CH)

Kaushal, Satya P.
M.B.B.S., India
Ortho. Surg.

Kaye, Celia
M.D., Wayne State U.
Ph.D., Northwestern U.
Ped.

Kaymakcalan, Orhan
M.D., Turkey
Gen. Surg.(MTSN)

Kazaniwskyj, Andrew
D.O., Chgo. Col. Osteo. Med.
Fam. Prac.(CH)

Kazaniwskyj, Lubomyra
D.O., Chgo. Col. Osteo. Med.
Fam. Prac.

Kazlauska, Theresa
M.D., U. of I. at Chicago
Ped.(CH)

Keane, Donal M.
M.D., Ireland
Anesthes.

Keane, John T.
M.D., Loyola U. of Chicago
Dermatology, Pathology

Kedziora, Guy
M.D., U. of Tn., Memphis
Th. Rad.

Keh-Wong, Elisa S.
M.D., Philippine Is.
Anesthes.

Kehoe, William R.
M.D., Loyola U. of Chicago
Int. Med.

Keith, L. Eugene
M.D., Harvard U.
Ped.

Keithley, Joyce
D.N.Sc., Rush U.
Surg. Nsg.

Kelleher, Leon R.
D.D.S., U. of I. at Chicago
Gen. Surg.

Kelley, Eric
M.D., U. of I. at Chicago
Int. Med.(MTSN)

Kelly, Jr., Frank B.
M.D., U. of Chicago
Int. Med.

Kelly, Derek J.
M.B., B.Ch., Ireland
Fam. Prac.(CH)

Kelly, Frank C.
M.S., U. of Wi.-Madison
Int. Med.

Kelly, Jonathan
M.D., SUNY Upstate Med. Ctr.
Psychi.

Kelly, Maureen P.
M.D., Hahnemann Med. Col.
Ob. & Gyne.

Kelly, Michael E.
M.D., U. of I. at Chicago
Gen. Surg.

Kemp, Mildred G.
Ph.D., U. of Michigan
Surg. Nsg.

Kendrick, Alfred E.
M.D., U. of I. at Chicago
Ped.

Kennedy, William P.
Ph.D., Loyola U. of Chicago
Ob. & Gyne.

Kennelly, Christine
M.S., Georgia St. U.
Pediatric Nsg.

Kenton, Lorry
M.S.N., U. of Co.-Denver
Geront. Nsg.

Keomuan, Poonsri
M.D., Thailand
Int. Med.

Kerns, James M.
Ph.D., Purdue U.
Anat.

Kerpe, Stase
M.D., Germany
Pathology(CH)

Kessler, Elizabeth
M.D., U. of Chicago
Neuro. Sci.

Kessler, Harold A.
M.D., Rush U.
Int. Med., Im./Micro.

Kett, Dwight D.
M.D., U. of I. at Chicago
Ob. & Gyne.

Keyes, Geoffrey
M.D., Loyola U. of Chicago

Keys, Cheryl L.
M.D., U. of Ma. Med. Sch.-Worcester
Ophthalmology

Khadem, May
M.D., Rush U.
Ophthalmology

Khan, Abdul K.
M.B.B.S., India
Int. Med.

Khan, Nikhat S.
M.D.
Ped.

Khan, Saeed
M.B.B.S., Pakistan
Int. Med.

Khedroo, Lawrence G.
D.D.S., M.D., Northwestern U.
Gen. Surg., Anat.

Khodadad, Jena
Ph.D., Northwestern U.
Anat., Pathology

Khosla, Subhash
M.B.B.S.
Th. Rad.

Khouzam, Atef
M.D., Egypt
Int. Med.(CH)

Khurana, C. Mohini
M.B.B.S., India
Ped.

Khurana, Saroj
M.B.B.S., India
Ped.

Kiel, Krystyna D.
M.D., U. of Ma. Med. Sch.-Worcester
Th. Rad.

Kijek, Barbara G.
M.D., Poland
Ped.

Kiley, R. James
M.D., Loyola U. of Chicago
Ped.

Kim, Ju Hyun
M.D., Korea
Ped.(CH)

Kim, Myung Ho
M.D.
Gen. Surg.(CH)

Kimura, James H.
Ph.D., Case Western Reserve U.
Biochem., Ortho. Surg.

Kindrachuk, William
M.D., U. of Toronto, Canada
Ped.(CDH)

King, Jerry N.
M.D., In. U.-Purdue U. at Indpl.
Cv.T. Surg.(CH)

King, Mary E.
M.D., Columbia U.
Pathology

King, Maureen A.
M.S., Rush U.
Med. Nsg.

Kinney, Janet
M.D., Northwestern U.
Int. Med.

Kintanar, Felismeno
M.D., Philippine Is.
Ped.

Kioutas, Theodosis
M.D., Greece
Int. Med.(BETH)

Kirchhoff, Karin
Ph.D., U. of I. at Chicago
Med. Nsg.

Kirk, Harold Q
M.D., Northwestern U.
Ophthalmology(WSUB)

Kirkland, Wallace W.
M.D., Northwestern U.
Int. Med.

Kirrin, Alex J.
M.D., Belgium
Ped.(CH)

Kistler, George
M.D., U. Ca.-Sn. Francisco
Int. Med.

Kittle, C. Frederick
M.D., U. of Chicago
Cv.T. Surg.

Kjerulff, Kristen H.
Ph.D., U. of I. at Urbana
Hlth. Syst. Mgt.

Klawans, Harold
M.D., U. of I. at Chicago
Neuro. Sci., Pharmacology

Klein, Louis D.
M.D.
Psychi.

Klinger, Alfred D.
M.D., U. of I. at Chicago
Prev. Med., Int. Med.

Klodd, David A.
Ph.D., Bowling Green St. U.
Oto. & Bronc., Rel. Hlth. Prg., Ped.

Klompien, Gerald
M.D.
Gen. Surg.(CH)

Klor, Barry M.
Ph.D., Northwestern U.
Rel. Hlth. Prg.

Knepper, Gregg C.
M.S., Ohio St. U.
Hlth. Syst. Mgt.

Knight, Raymond W.
M.D., Ohio St. U.
Int. Med.

Knight, Russell M.
M.H.A., U. of Mn. of Mnpls. St. Paul
Hlth. Syst. Mgt.

Knipmeyer, Jay W.
M.D., U. of I. at Chicago
Ob. & Gyne.

Knospe, William H.
M.D., U. of I. at Chicago
Int. Med.

Knott, Jr., A. Paul
M.D., Yale U.
Int. Med.

Knox, Timothy
M.D., Chicago Med. Sch.
Fam. Prac.(CH)

Ko, T. S.
M.D., China-Taiwan
Gen. Surg.(MTSN)

Kobak, Alfred
M.D., U. of I. at Chicago
Ob. & Gyne.

Kobrosky, Neil
M.D.
Int. Med.

Kohn, Norman
M.D., Yale U.
Neuro. Sci.(MTSN)

Koinis, Kostas E.
M.D., Greece
Ped.(CH)

Kolb, Leonard H.
M.D., U. of I. at Chicago
Gen. Surg.(MTSN)

Kominsky, Perrie
M.A., Northwestern U.
Rel. Hlth. Prg.

Konkle, Barbara
M.D.
Int. Med.

Kooser, Judith A.
M.D., Rush U.
Th. Rad.

Kopytko, Edwin E.
M.S., Rush U.
Psychi. Nsg.

Korbet, Stephen M.
M.D., Rush U.
Int. Med.

Korenblit, Allen
M.D., Rush U.
Ped.

Korey, Michael
M.D., U. of I. at Chicago
Ophthalmology

Korey, Rhonda
M.S., Rush U.
Geront. Nsg.

Korn, Jr., Roy
M.D., U. of I. at Chicago
Int. Med.

Kornblatt, Brian J.
M.D., Med. Col. of Pa.
Fam. Prac.(WSUB)

Kornel, Ludwig
M.D., Poland
Ph.D., U.K.
Int. Med., Biochem.

Kornhauser, Michael
M.D.
Ped.

Korzeck, Kenneth R.
M.D., Rush U.
Oto. & Bronc.

Kossol, Janet M.
M.D., U. of Pittsburgh
Di. Rad. & Nuc. Med.

Kotin, Anthony M.
M.D., Rush U.
Int. Med.

Kovacs, Joseph
M.D., Case Western Reserve U.
Urology(CH)

Kowal, Roland A.
D.D.S., U. of I. at Chicago
M.D., Chicago Med. Sch.
Gen. Surg.

Kowalski, John A.
M.D., Rush U.
Int. Med.(MTSN)

Kowalski, Timothy F.
M.D., U. of Michigan
Int. Med.

Kraft, Margaret
M.S.
Geront. Nsg.

Krahn, Wolf-Dieter
M.D., Albany Med. Col.
Fam. Prac.

Kraines, Samuel H.
M.D., U. of I. at Chicago
Psychi.

Kraker, Steven K.
M.D., Rush U.
Int. Med.

Kramer, Toby
M.D., U. of I. at Chicago
Th. Rad.

Krasnow, Sheldon E.
M.D., U. of I. at Chicago
Int. Med.(WSUB)

Kraus, Merry Beth
M.H.A., U. of Michigan
Hlth. Syst. Mgt.

Krause, Charles D.
M.D., U. of I. at Chicago
Ob. & Gyne.

Krause, Sue Ellen
Ph.D., Northwestern U.
Oto. & Bronc., Rel. Hlth. Prg.

Kravitz, Howard
D.O., Chgo Col. Osteo. Med.
Psychi., Psych. & Soc. Sci.

Krishnasamy, S.
M.B.B.S., India
Th. Rad.

Kroger, Elliott
M.D., Rush U.
Int. Med.

Kroin, Jeffrey S.
Ph.D., U. of Ca.-L.A.
Neuro. Surg., Physiol.

Kronman, Bruce
M.E., Rensselaer Poly. Inst.
Hlth. Syst. Mgt.

Krueger, Charlotte
M.Ed., Loyola U. of Chicago
Rel. Hlth. Prg.

Kubak, Bernard M.
Ph.D., Loyola U. of Chicago
Im./Micro.

Kubiak, Linda
M.S., U. of I. at Chicago
Obstetrics & Gynecology Nsg.

Kubicka, Robert
M.D., U. of I. at Chicago
Di. Rad. & Nuc. Med.

Kubycheck, Russell M.
M.D., Mexico
Ob. & Gyne.

Kuettner, Klaus E.
Ph.D., Switzerland
Biochem., Ortho. Surg.

Kulis, John C.
M.D., Loyola U. of Chicago
Int. Med.(SWED)

Kumar, Sudhir Ph.D., India Biochem., Neuro. Sci.	Landon, Glenn C. M.D., Loyola U. of Chicago Ortho. Surg.	Lawson, Lauren Ph.D., U. of I. at Chicago Med. Nsg.
Kunz, Peter M.D. Gen. Surg.	Lane, Harold J. M.D., U. of I. at Chicago Psychi.	Lawson, Leonard J. M.D., Meharry Med. Col. Ob. & Gyne.
Kuo, Ken Nan M.D., China-Taiwan Ortho. Surg.	Lane, James T. M.D., U. of Mo.-Kansas City Int. Med.	Lawton, Stanley E. M.D., Rush Med. Col. Gen. Surg.
Kurotsuchi, Roy Y. M.D., U. of I. at Chicago Ob. & Gyne.(COMM)	Lang, Mary M.D., Chicago Med. Sch. Fam. Prac.	Layfer, Lawrence M.D., Rush U. Int. Med.
Kurth, Milton E. M.D., U. of I. at Chicago Pls. & Rec. Surg.(CH)	Lange, Yvonne Ph.D., U.K. Pathology, Biochem.	Lazarus, Lawrence W. M.D., Hahnemann Med. Col. Psychi.
Kurup, Parvathy M.B.B.S., India Th. Rad.	Langston, Hiram T. M.D., U. Louisville Cv.T. Surg.	Leahy, Mary M.S., Rush U. Ob. & Gyne. Nsg.
Kuszak, Jerome R. Ph.D., Wayne State U. Pathology, Anat.	Lanigan, Kathleen M.S., Rush U. Surg. Nsg.	Leake, James E. M.D., Michigan State U. Pls. & Rec. Surg.
Kuyzin, Lanis L. M.D., Northwestern U. Int. Med.	Lanzl, Lawrence Ph.D., U. of I. at Urbana Th. Rad., Rel. Hlth. Prg.	Leavitt, Frank Ph.D., Washington U. Psych. & Soc. Sci.
Kuznetsky, Kenneth A. M.D., Rush U. Int. Med.	Larach, Juan C. M.D., Yale U. Int. Med.	Lee, Chang Bok M.D., Korea Ophthalmology
Kwiecinski, Michael M.D., U. of I. at Chicago Int. Med.	Largosa, Anastacia M.D., Philippine Is. Fam. Prac.(CH)	Lee, Ham Nyung M.D., Korea Th. Rad.(CH)
Labanauskas, Ignas M.D. Ortho. Surg.	Larramendi, Paloma B.S., Spain Physiol.	Lee, In Chul M.D., Korea Pathology
Lafon, Michael C. M.D., U. of Miami Ob. & Gyne.	Larsen, Erik M.D., Chicago Med. Sch. Gen. Surg.(SWED)	Lee, Myung-Sook M.D., Korea Th. Rad., Rel. Hlth. Prg.
Laga, Stephen F. M.D., St. Louis U. Gen. Surg.	Larson, John G. Ph.D., U.K. Hlth. Syst. Mgt.	Lee, Robert J. M.D., U. of I. at Chicago Ob. & Gyne.(CH)
Lai, Joseph C. M.B., China-Taiwan Anesthes.	Larson, John M. M.D., U. of I. at Chicago Anesthes.(COMM)	Lee, Russell M. M.D., Chicago Med. Sch. Int. Med.
Lai, Tai Min M.D., China-Taiwan Anesthes.(CH)	Larson, Paul R. M.D., Michigan State U. Ob. & Gyne.(SWED)	Lee, Trusten P. D.D.S., Loyola U. of Chicago Gen. Surg.
Laing, Grant H. M.D. Int. Med.	Lastres, Enrique J. M.D., Cuba Anesthes.(COMM)	Leff, Joel R. M.D., U. of I. at Chicago Psychi.(CH)
Lal, Anand M.B.B.S., India Int. Med.	Lauder, Winifred M.S., U. of I. at Chicago Surg. Nsg.	Leiden, Amy M.D. Int. Med.
Lamb, Karen M.S., Rush U. Geront. Nsg.	LaValle, Sue M.S., Rush U. Med. Nsg.	Leist, Michael M.D., U. of I. at Chicago Int. Med.(MTSN)
Lambert, Claude N. M.D., U. of Chicago Ortho. Surg.	Lawler, Patricia E. M.S., Rush U. Surg. Nsg.	Lemberger, Terrence M.D., U. of I. at Chicago Fam. Prac.(CH)
Lambur, James A. K. M.D., Loyola U. of Chicago Ortho. Surg.(CH)	Lawlor, Mary M.D., La. St. U. Med. Ctr. Int. Med.(GRNT)	Lemons, James A. M.D., Northwestern U. Gen. Surg.(CH)
Lamprecht, Catherine M.D., U. of I. at Chicago Ped.(MTSN)	Lawrence, Arthur G. M.D., U. of Chicago Gen. Surg.(WSUB)	Lepper, Mark H. M.D., George Washington U. Int. Med., Prev. Med., Hlth. Syst. Mgt.
Landau, William Ph.D., U. of Pennsylvania Im./Micro.	Laws, Michael H. M.D. Fam. Prac.	Lerner, Wayne M. M.H.A., U. of Michigan Hlth. Syst. Mgt.
Landay, Alan Ph.D., U. of Pittsburgh Im./Micro., Rel. Hlth. Prg.	Lawson, Clyde M.D., Meharry Med. Col. Ob. & Gyne.	LeSage, Joan Ph.D., Texas Womans U. Geront. Nsg.

Leslie, William T. M.D. Int. Med.	Liceaga, Alvaro O. M.D., Rush U. Anesthes.	Psych. & Soc. Sci.
Lessin, Barry D. M.D., U. of Wi.-Madison Int. Med.	Liebson, Philip R. M.D., SUNY Downstate Med. Ctr. Int. Med., Prev. Med.	Lobstein, Otto E. Ph.D., Northwestern U. Biochem.
Lev, Maurice M.D., Creighton U. Ped., Int. Med., Pathology	Lief, Matthew S. M.D., Mexico Urology	LoBue, Thomas D. M.D., Chicago Med. Sch. Ophthalmology
Levin Jay L. M.D. Ortho. Surg.	Lietz, Stephen T. M.D. Int. Med.	Loevy, Sara S. Dr.P.H., U. of I. at Chicago Hlth. Syst. Mgt.
Levin, Joel M. M.D., U. of I. at Chicago Int. Med.	Lilie, Jamie Kaufman Ph.D., In. U.-Purdue U. at Indpl. Psych. & Soc. Sci.	Loew, Jerome M.D., Einstein Col. of Med. Pathology
Levin, Mark H. M.D., U. of I. at Chicago Int. Med.(MTSN)	Lim, Diosdado M.D., Philippine Is. Ped.(CH)	Lofgren, Katharine A. M.S.W., U. of I. at Chicago Psych. & Soc. Sci., Psychi.
Levin, Mark N. M.D., Rush U. Gen. Surg.	Lim, Toh Hoai M.B.B.S., China-Taiwan Int. Med.(SWED)	Logas, William George D.O., Chgo. Col. Osteo. Med. Anesthes.
Levin, Robert D. M.D., U. of Chicago Int. Med.(MTSN)	Limp, Charles M.D., U. of I. at Chicago Ped.(CDH)	Loghman-Adham, Mahmoud M.D., France Ped.(MTSN)
Levin, Stuart M.D., U. of I. at Chicago Int. Med., Im./Micro., Prev. Med.	Lisperis, Chris E. J.D., U. of Michigan Hlth. Syst. Mgt.	Loiterman, David A. M.D., Mt. Sinai Sch. Med. of CUNY Cv.T. Surg.
Levine, Charlotte C. M.D., Johns Hopkins U. Prev. Med., Int. Med., Fam. Prac.	Lin, Jui Kuang M.D., China-Taiwan Anesthes.(CH)	London, Ruth M.D., Israel Ped.(MTSN)
Levine, Milton D. M.D., Johns Hopkins U. Prev. Med., Int.	Lin, Mali M.D., Japan Ob. & Gyne.(MTSN)	Long, John S. M.D., U. of I. at Chicago Ob. & Gyne.
Levis, Richard A. Ph.D., U. of Ca.-L.A. Physiol.	Lin, Sun Kuang M.D., China-Taiwan Ped.(WSUB)	Long, Lorraine M.S.N., Yale U. Psychi. Nsg.
Levitin, Ruven M.D., Israel Int. Med.	Lin, Yuan-huai M.D., China-Taiwan Anesthes.(CH)	Lopez, Carolyn C. M.D., U. of I. of Chicago Fam. Prac.(CH)
Levitt, Leonard M.D., Rush U. Dermatology	Lindenberger, Martin S. M.D., U. of Mo.-Columbia Int. Med.(MTSN)	Lopez, Marco A. M.D., Cuba Fam. Prac.(CH)
Levitt, Leroy M.D., Chicago Med. Sch. Psychi.(MTSN)	Lindgren, Robert M.D., Rush U. Ob. & Gyne.(CH)	Lopez, Mario O. M.D., Philippine Is. Fam. Prac.(CH)
Levy, Howard B. M.D., U. of I. of Chicago Ped.(MTSN)	Linsky, Miles A. Ph.D., Florida St. U. Psych. & Soc. Sci.	Lopez, Martita Ph.D., Syracuse U. Psych. & Soc. Sci.
Levy, Jerre Ph.D., Ca. Inst. of Tech. Ped.	Lint, Thomas F. Ph.D., Tulane U. of Louisiana Im./Micro.	Loerber, Rudy Ph.D., U. of Oregon Psych. & Soc. Sci., Ped.
Lewandowski, Robert M.S., Loyola U. of Chicago Hlth. Syst. Mgt.	Lippner, Lewis A. M.A., George Washington U. Hlth. Syst. Mgt.	Lorsch, Steven R. M.D. Int. Med.
Lewicky, Andrew O. M.D., Northwestern U. Ophthalmology	Lipshitz, Sam M.D., Chicago Med. Sch. Urology(MTSN)	Lowell, Douglas G. M.D. Int. Med.
Lewis, Bruce M.D., Rush U. Int. Med.	Lisberg, Edward E. M.D., Rush U. Int. Med.	Lower, Helen M. Ph.D., SUNY Col. at Buffalo Comm. Hlth. Nsg.
Lewis, Edmund J. M.D., U. of British Columbia, Canada Int. Med.	Littleton, Marguerite M.S.N., Med. Col. of Georgia Surg. Nsg.	Lubell, David L. M.D., Switzerland Int. Med.(MTSN)
Lewis, Harry M. M.D., Ohio St. U. Cv.T. Surg.	Liu, Shin S. Ph.D., SUNY at Buffalo Th. Rad.	Lubenow, Timothy R. M.D., U. of Wi.-Madison Anesthes.
Libert, Samuel A. M.D., Chicago Med. Sch. Psychi.	Llewellyn, Jane D.N.Sc., Rush U. Surg. Nsg.	Lucchese, Neil J. M.D., Northwestern U. Ophthalmology(CH)
	Lloyd, Stephen R. M.A., U. of I. at Chicago	Lucero, Roger A. M.D., Chicago Med. Sch. Int. Med.

Faculty Alphabetical List

Lufrano, Anne L.
Ph.D., Virginia College
Psych. & Soc. Sci.(CH)

Luger, Gerald
M.D., Einstein Col. of Med.
Int. Med.

Luke, Kevin W.
M.D., Rush U.
Ortho. Surg.

Luken, Julie A.
M.D., U. of I. at Chicago
Ped.

Lukens, Abbie R.
M.D., U. of Chicago
Ped.(COMM)

Lunde, Mark
M.D., U. of I. at Chicago
Ophthalmology

Luong, Ho N.
M.D.
Ped.

Lusk, Peggy
M.A., Syracuse U.
Psychi. Nsg.

Luskin, Allan T.
M.D., U. of I. at Chicago
Im./Micro. Int. Med.

Lynch, Priscilla
M.S., St. Xavier Col.
Psychi. Nsg.

Mac Entee, Peter F.
M.D., Ireland
Fam. Prac.(CH)

Mac Leod, Catherine M.
M.D., U. of Manitoba, Canada
Pharmacology, Int. Med.

Mac Mullen, Nancy
M.S.N., Loyola U. of Chicago
Obstetrics & Gynecology Nsg.

Mack, Stephen
Ph.D., New York U.
Ob. & Gyne.

Macleod, Cathel A.
M.D., Tufts U.
Gen. Surg.

Maclin, Victoria
M.D.
Ob. & Gyne.

Maczulski, Jo Ann
B.A. Michigan State U.
B.S., Wayne State U.
Rel. Hlth. Prg.

Madden, Thomas
M.B., B.Ch., U.K.
Prev. Med., Int. Med., Fam. Prac.

Madhav, Gopal
M.D., India
Int. Med.(CH)

Mady, Vekatgiri
M.D., India
Anesthes.(MTSN)

Maedel, Lynn
M.S., Michigan State U.
Rel. Hlth. Prg.

Maffey, Susan
M.D.
Int. Med.

Magana, Lillian C.
M.D., Dominican Republic
Int. Med.(MTSN)

Mahler, Sandra J.
M.D., Northwestern U.
Fam. Prac.(WSUB)

Maibenco, Helen
Ph.D., U. of I. at Chicago
Anat.

Maikler, Virginia
M.S., Rush U.
Pediatrics Nsg.

Maimonis, Laurie C.
M.S., U. of Wi.-Madison
Rel. Hlth. Prg.

Malen, David G.
M.D., U. of I. at Chicago
Psychi.

Malhotra, Madhu
M.B.B.S., India
Int. Med.(CH)

Malik, Khadija
M.B.B.S., India
Int. Med.(MTSN)

Malkinson, Frederick
M.D., Harvard U.
Dermatology

Mallory, Gail
M.S., Adelphi U.
Med. Nsg.

Maltezos, Stavros N.
M.D., Rush U.
Neuro. Surg.

Manaligod, Librada J.
M.D., Philippine Is.
Ped.

Mandel, Elias
B.S., McGill U., Canada
Ped.(CH)

Mangoubi, Elie
M.D., Belgium
Psychi.

Mann, Edward P.
M.D., U. of I. at Chicago
Ophthalmology(CH)

Mannina, Anthony J.
M.D., Rush U.
Int. Med.

Mannweiler, Nancy E.
M.D.
Int. Med.

Mansfield, Margo
M.A., Roosevelt U.
Rel. Hlth. Prg.

Mar, Calvin M.
M.D., U. of Tx. Med. Brch., Galveston
Ob. & Gyne.

Marbach, Walter J.
M.D., U. of I. at Chicago
Int. Med(CH)

Marchmont-Robinson, H.
M.D., U. of Pennsylvania
Fam. Prac.(CH)

Marchuk, Basil
M.D., Germany
Gen. Surg.

Marczynska, Barbara
Ph.D., Poland
Im./Micro.

Margules, Kenneth R.
M.D., Chicago Med. Sch.
Int. Med.

Marikovsky, Yehuda
Ph.D., Israel
Pathology

Marinelli, Antony
M.D., Northwestern U.
Int. Med.(GRNT)

Mariyappa, M. P.
M.B.B.S., India
Ped.

Markey, William S.
M.D., Case Western Reserve U.
Int. Med.

Markos, Mathew S.
M.B.B.S., India
Psychi.

Markovitz, David
M.D., U. of Arizona
Int. Med.(CH)

Marks, Helen M.
M.D., Albany Med. Col.
Int. Med.

Marohn, Richard
M.D., Marquette U.
Psychi.

Marshall III, Roland M.
M.D., U. of I. at Chicago
Pathology

Marshall, Paul N.
Ph.D., U.K.
Int. Med., Pathology

Martin, Eileen M.
M.S., U. of Wi.-Madison
Psych. & Soc. Sci.

Martin, John E.
M.D., U. of I. at Chicago
Int. Med.(GRNT)

Martin, Michael
M.D., U. of I. at Chicago
Int. Med.(CH)

Martinazzo-Dunn, Anna
M.D., Italy
Psychi.

Martinez, Charles J.
M.D., St. Louis U.
Int. Med.(MTSN)

Martinez, Mollena
M.S.N., U. of Pennsylvania
Obstetrics & Gynecology Nsg.

Martinez, Robert
M.D., U. of I. at Chicago
Fam. Prac.(CH)

Mason, Edward L.
M.D., U. of I. at Chicago
Fam. Prac.(SWED)

Mason, John W.
M.D., Case Western Reserve U.
Pathology(CH)

Massey, Richard J.
Ph.D., U. of I. at Chicago
Im./Micro.

Matalon, Terence
M.D., Boston U.
Di. Rad. & Nuc. Med.

Matheson, Michelle
D.D.S., U. of Iowa
Gen. Surg.

Mathias, Richard T.
Ph.D., U. of Ca.-L.A.
Physiol.

Mathisen, Douglas J.
M.D., U. of I. at Chicago
Cv. T. Surg.

Matijevitch, Branislav
M.S., Yugoslavia
Biochem.

Mattenheimer, Hermann
M.D., Germany
Ph.D., Germany
Biochem.

Matthew, Guy R.
M.D., In. U.-Purdue U. at Indpl.
Di. Rad. & Nuc. Med., Int. Med.

Mattis, Richard C.
M.D., Loyola U. of Chicago
Int. Med.

Matula, Joseph J.
D.O., Chgo. Col. Osteo. Med.
Fam. Prac.

Matuska, Susan
M.S.N., U. of I. at Chicago
Med. Nsg.

Matz, Stephen
M.S., Rush U.
Surg. Nsg.

Maxwell, Sarz
M.D., Loyola U. of Chicago
Psychi.

McCann, Judith
M.S., Rush U.
Med. Nsg.

McCarron, Edward J.
M.D., Dalhousie U.
Ortho. Surg.

McCarthy, Richard
B.S., U. of I. at Urbana
Physiol.

McCarthy, Robert J.
Pharm.D, Purdue U.
Anesthes., Pharmacology

McCarthy, William G.
M.D., Loyola U. of Chicago
Gen. Surg.

McCartney, Charles P.
M.D., U. of Chicago
Ob. & Gyne.(CH)

McCaughhey, Marcia
M.S., DePaul U.
Surg. Nsg.

McCormick, Alice
M.D.
Int. Med.

McCormick, Anne
M.S., U. Ca.-Sn. Francisco
Ob. & Gyne., Nsg.

McCormick, Patrick J.
M.D., U. of Wi.-Madison
Int. Med.(CH)

McCoy, James J.
M.D., Loyola U. of Chicago
Fam. Prac.(WSUB)

McCreary, Patricia A.
M.D., Northwestern U.
Prev. Med., Int. Med.

McDermott, Joseph E.
M.D., West Virginia U.
Neuro. Sci.

McDonald, Gerald
M.D., Northwestern U.
Gen. Surg.

McDonnell, Ann Marie
M.S., Rush U.
Pediatric Nsg.

McEachron, Patricia
M.S.N., Northern Illinois U.
Pediatric Nsg.

McErlean, Jeffrey A.
M.D., Northwestern U.
Gen. Surg.

McHale, Marnie
M.S., Rush U.
Med. Nsg.

McHugh, Rosemary E.
M.D., Ireland
Fam. Prac.

McKendry, Justin
M.D.
Int. Med.

McKenna, Rajalaxmi
M.D., India
Int. Med., Pharmacology

McKenna, William W.
M.D., Loyola U. of Chicago
Int. Med.(CH)

McKiel, Jr., Charles
M.D., Loyola U. of Chicago
Urology

McLachlan, Daniel L.
M.D., Northwestern U.
Ophthalmology

McLaughlin, Margaret
M.D., U. of Chicago
Int. Med.

McLeod, Bruce C.
M.D., Harvard U.
Int. Med.

McMillan, Foster L.
M.D., U. of I. at Chicago
Gen. Surg.

McMillan, J. Charles
M.D., U. of I. at Chicago
Int. Med.(WSUB)

McNally, Randall E.
M.D., St. Louis U.
Pls. & Rec. Surg..

McNally, Rhonda
M.S., Rush U.
Pediatrics Nsg.

McNamara, Barry T.
J.D., Northwestern U.
Psych. & Soc. Sci.

McNeill, Thomas
M.D., U. of I. at Chicago
Ortho. Surg.

McNulty, Thomas F.
B.S., DePaul U.
Hlth. Syst. Mgt.

McQuay, Russell M.
A.B.
Pathology(MTSN)

McRae, Jr., Roy
M.D., Vanderbilt U.
Int. Med.

Mead, John D.
Ph.D., Washington St. U.
Psych. & Soc. Sci., Ped.

Medenits, Vidvuds
M.D., Germany
Int. Med.

Meehan, Marjorie C.
M.D., Johns Hopkins U.
Psychi.

Mehlinger-Mitchell, R.
M.D.
Psychi.

Mehta, Munkundini
M.B.B.S., India
Ob. & Gyne.

Meier, Werner
M.D., Peru
Ped., Ob. & Gyne.

Meiszner, John W.
M.D., Loyola U. of Chicago
Psychi.(CH)

Melnick, Carol R.
M.A., Northwestern U.
Rel. Hlth. Prg.

Melwak, Maryalice
M.S., Rush U.
Hlth. Syst. Mgt.

Melyn, Michelle
M.D., U. of I. at Chicago
Neuro. Sci., Ped.

Mendak, Stephen J.
M.D., Loyola U. of Chicago
Gen. Surg.

Mendelson, Lisa S.
M.S., Rush U.
Surg. Nsg.

Menning, Walter R.
M.S., Mass. Inst. of Tech.
Hlth. Syst. Mgt.

Merali, Ghanshyam V.
M.B.B.S., India
Fam. Prac.(CH)

Mercer, Jeanne K.
M.D., U. of I. of Chicago
Ped.(WSUB)

Mercer, Thomas H.
M.D., Northwestern U.
Ob. & Gyne.(WSUB)

Meredith, Paul A.
M.D., Northwestern U.
Int. Med.

Merkel, Frederick K.
M.D., Johns Hopkins U.
Gen. Surg., Int. Med., Im./Micro.

Mermelstein, Robin
M.A., U. of Oregon
Psych. & Soc. Sci.

Merrick, Frank W.
M.D., U. of Michigan
Ob. & Gyne.

Merrick, James W.
M.D., Rush Med. Col.
Urology

Mershon, Steven
M.D., Med. Col. Ohio at Toledo
Psychi.

Mervis, Leonard J.
Ph.D., U. of Pittsburgh
Relig. & Hlth.

Merwick, Patricia A.
M.D., Northwestern U.
Int. Med.

Meserow, James A.
M.D., Rush U.
Ob. & Gyne.

Faculty Alphabetical List

Mesleh, George F.
M.B.B.Ch., Egypt
Gen. Surg.(CH)

Messer, Joseph V.
M.D., Harvard U.
Int. Med.

Metha, Mansukh H.
M.B.B.S., India
Anesthes.(MTSN)

Mets, Marilyn
M.D., George Washington U.
Ophthalmology, Ped.

Meyer, Barbara
Ph.D., Florida St. U.
Psych. & Soc. Sci.

Meyer, John H.
M.D., Italy
Prev. Med., Int. Med.

Meyer, Nancy
M.S.N., Wayne State U.
Geront. Nsg.

Michael, Joel A.
Ph.D., Mass. Inst. of Tech.
Physiol., Neuro. Sci.

Michaels, Henry M.
M.D., U. of I. at Chicago
Fam. Prac.(WSUB)

Michalow, Alex E.
M.D., Rush U.
Gen. Surg.

Michalski, Elizabeth
M.S., Loyola U. of Chicago
Med. Nsg.

Mihelich, Kenneth
M.D.
Gen. Surg.

Milburn, Carol
M.S., Rush U.
Med. Nsg.

Miles, Alma
M.P.H., U. of I. at Chicago
M.S., Rush U.
Geront. Nsg.

Milianti, Franklin
Ph.D., U. of Okla.
Rel. Hlth. Prg.

Miller, Alexander W.
M.D., U. of I. at Chicago
Pathology

Miller, Cheryl K.
M.D., Georgetown U.
Ob. & Gyne.

Miller, Daniel S.
M.D., Temple U.
Pls. & Rec. Surg.

Miller, Deborah J.
M.S., Rush U.
Surg. Nsg.

Miller, Edwin
M.D., Loma Linda U.
Fam. Prac.

Miller, Elinor
M.D., Cornell U. Med. Ctr.
Int. Med.

Miller, Herb
Ph.D., Northwestern U.
Rel. Hlth. Prg.

Miller, Howard R.
M.D., U. of I. at Chicago
Ped.

Miller, Jack M.
M.D., U. of I. at Chicago
Ob. & Gyne.

Miller, Joanne
M.S., Rush U.
Geront. Nsg.

Miller, Raymond N.
M.D., U. of I. at Chicago
Psychi.

Miller, Robert
M.D., Va. Commonwealth U.
Ortho. Surg.(CH)

Miller, Robert A.
M.D., Northwestern U.
Ped.

Miller, Robert B.
Ph.D., Florida St. U.
Psych. & Soc. Sci.(MLSQ)

Millikan, Keith W.
M.D., Rush U.
Gen. Surg.

Millman, William L.
M.D., U. of I. at Chicago
Int. Med.(WSUB)

Milloy, Frank J.
M.D., Northwestern U.
Cv.T. Surg.

Milton, Bernard G.
M.D., U. of Md. Balt. Prof. Sch.
Fam. Prac.(COMM)

Mina, Afifa
M.D.
Ped.

Mindlin, Rowland L.
M.D., Harvard U.
Ped., Prev. Med.

Mini, James A.
Ped.(CDH)

Minton, Paula
M.S.N., Northern Illinois U.
Med. Nsg.(SKVH)

Misch, Donald
M.D., Rush U.
Int. Med.

Mitchell, Sheila
B.S., U. of I. at Urbana
Rel. Hlth. Prg.

Mizen, Thomas
M.D., Chicago Med. Sch.
Ophthalmology

Milcoch, Anthony G.
Ph.D., Purdue U.
Rel. Hlth. Prg.

Mok, Young He
M.D., Korea
Ped.(MTSN)

Mokry, Cyrus
M.D., India
Family Practice (WSUB)

Mold, Carolyn
Ph.D., U. of Mn. of Mnpl. St. Paul
Im./Micro.

Moldando, Alexander
M.D., U. of I. at Chicago
Fam. Prac.

Molnar, Marija V.
M.D., Yugoslavia
Ob. & Gyne.

Mon, Donald T.
B.A., San Francisco St. U.
Hlth. Syst. Mgt.

Mon, Richard L.
M.D., Philippine Is.
Int. Med.(CH)

Moncreiff, William F.
M.D., Rush Med. Col.
Ophthalmology

Moncrieff, Ellsworth H.
B.A., U. of Detroit
Psych. & Soc. Sci.

Moneer, Yusuf
M.D., Pakistan
Int. Med.(COMM)

Monico, Linda
M.S., Rush U.
Med. Nsg.

Monroe, Clarence W.
M.D., Rush Med. Col.
Pls. & Rec. Surg.

Monson, David O.
M.D., U. of Mn. of Mnpl. St. Paul
Cv.T. Surg.

Moolayil, Kumar D.
M.B.B.S., India
Psychi.(MTSN)

Moon, Byong
Ph.D., Washington St. U.
Pharmacology, Int. Med.

Moore, Janet S.
Ph.D., U. of Arizona
Geront. Nsg.

Moore, Jean M.
B.S., Indiana U.
Prev. Med.

Moore, Kenneth L.
M.D., U. of Chicago
Neuro. Sci., Int. Med.

Moore, W. Aubrey
M.D., Northwestern U.
Ph.D., U. of Chicago
Int. Med.(COMM)

Moran, Thomas E.
M.D., Loyola U. of Chicago
Pathology (CH)

Morch, E. Trier
M.D., Ph.D., Denmark
Anesthet.

Morgenstern, Jacob M.
M.D., Chicago Med. Sch.
Ortho. Surg.(MTSN)

Morgenstern, Sidney
M.D., U.K.
Ortho. Surg.(MTSN)

Morley, Colin
Ph.D., Australian Nat'l. U.
Biochem.

Morreale, Barbara
M.S., Rush U.
Surg. Nsg.

Morrell, Frank
M.D., Columbia U.
Neuro. Sci.

Morris, Arthur M.
M.D.
Int. Med.

Morris, Booker T.
M.D.
Ob. & Gyne.

Morris, Gerald D.
M.D., Albany Med. Col.
Int. Med.

Morrison, David M.D., U. of Southern Ca. Psychi.	Murphy, Peter M.D., U.K. Anesthes.	Neidich, Robin D. M.A., U. of Pittsburgh Rel. Hlth. Prg.
Moss, Jerry F. M.D., Wayne State U. Gen. Surg.	Murray, Meredith B. M.D., Loyola U. of Chicago Ob. & Gyne.(WSUB)	Nelson, Bertram M.D., Rush U. Int. Med.
Moss, Patricia M.S.N., U. of Texas at Austin Surg. Nsg.	Murthy, Anantha K. M.B.B.S., India Th. Rad., Rel. Hlth. Prg.	Nelson, Deborah J. Ph.D., U. of Ca.-L.A. Physiol.
Moss, Percy C. M.D., Meharry Med. Col. Ob. & Gyne.	Mykytiuk, Larysa M.D. Ped.	Nelson, Delbert H. M.D., U. of I. at Chicago Fam. Prac.(CH)
Movagh, Azar M.D., Iran Anesthes.	Naber, Sarah M.S.N., U. of I. at Chicago Ob. & Gyne. Nsg.	Nelson, Erland R. M.D., Columbia U. Ph.D., U. of Mn. of Mnpl. St. Paul Neuro. Sci.(MTSN)
Mowbray, David N. M.D., U. of Toronto, Canada Dermatology	Nachich-Scheid, Tina M.S., Rush U. Surg. Nsg.	Nelson, Jeffre A. M.D., U. of I. at Chicago Int. Med.
Mox, Scott W. M.D., U. of Chicago Ortho. Surg.	Nagaraju, Ramalingappa M.D., India Int. Med.	Nelson, Joan M.S.N., DePaul U. Surg. Nsg.
Muchow, Elizabeth M.A., U. of Chicago Comm. Hlth. Nsg.	Nagel, Jr., B. Michael M.D. Ob. & Gyne.	Nelson, Karen B. M.D., U. Ca.-Sn. Francisco Ped., Prev. Med.
Muehrcke, Allan O. M.D. Int. Med.	Nagel, Harry T. M.D., Czechoslovakia Ped.	Nelson, Karen L. M.D., U. of Mn. of Mnpl. St. Paul Psychi.
Muehrcke, Robert C. M.D., U. of I. at Chicago Int. Med.(WSUB)	Naidu, Vasantha M.B.B.S., India Ped.	Nelson, Michael N. Ph.D., U. of Wi.-Madison Psych. & Soc. Sci., Ped.
Mueller, Kathryn L. M.D., U. of Nebr.-Lincoln Fam. Prac.(CH)	Najafi, Hassan M.D., Iran Cv. T. Surg.	Nelson, Thomas L. D.D.S., Case Western Reserve U. Gen. Surg.
Mueller, Laura M.S.N., U. of Pennsylvania Ob. & Gyne. Nsg.	Nakayama, Syuei M.D., Japan Im./Micro.	Nelson, William J. M.D., Loyola U. of Chicago Fam. Prac.(COMM)
Mueller, Paul L. M.D., Ohio St. U. Ped.(CH)	Nama, Prabhavathi M.B.B.S., India Ob. & Gyne.	Neri, Jr., Gilberto S. M.D., Philippine Is. Prev. Med., Int. Med.
Muellner, Maggie M.S., U. of I. at Chicago Ob. & Gyne. Nsg.	Narayan, M. S. Laxmi M.B.B.S., India Ped.	Neufeld, Timothy E. M.D., Loma Linda U. Fam. Prac.
Muenster, Joseph J. M.D., St. Louis U. Int. Med., Ped.	Narcelles-Mon, Leilani M.D., Philippine Is. Int. Med.(CH)	Nevalainen, David Ph.D., U. of Mn. of Mnpl. St. Paul Pathology
Muenzer, Alan S. B.A., CUNY Brooklyn Col. Hlth. Syst. Mgt.	Nash, Donald D. M.D., Rush U. Gen. Surg.(MTSN)	Newman, Daniel C. M.D., U. of Michigan Ortho. Surg.
Mularczyk, Joseph M.D. Int. Med.	Nasralla, Nahim H. M.D., Honduras Gen. Surg.(CH)	Newman, Julius S. M.D., U. of I. at Chicago Int. Med., Fam. Prac.(COPL)
Mulligan, Kathryn M.D., Rush U. Int. Med.	Nathan, John E. D.D.S., Northwestern U. Gen. Surg., Ped.	Neybert, Hilary F M.D., Malaya Fam. Prac.(CH)
Mulopulos, George M.D., Chicago Med. Sch. Di. Rad. & Nuc. Med.	Neal, Richard H. M.D., U. of Chicago Int. Med.(WSUB)	Nicholas, Everett E. M.D., Northwestern U. Gen. Surg.(WSUB)
Mundt, G. Henry M.D., Yale U. Ophthalmology(COMM)	Necas, Kevin J. M.B.A., Northwestern U. Hlth. Syst. Mgt.	Nicholas, W. John M.D., Mexico Int. Med.
Munir, Seema D.O., Chgo. Col. Osteo. Med. Fam. Prac.(CH)	Neches, Norman M. M.D., SUNY Downstate Med. Ctr. Ob. & Gyne.	Nichols, Dickronouhi B.S., U. of I. at Urbana Rel. Hlth. Prg.
Munoz, Jose N. M.D., Philippine Is. Fam. Prac.(CH)	Needelman, Howard W. M.D., Rush U. Ped.	Nichols, Mark O. M.D., Mexico Gen. Surg.
Murakami, Marcia E. M.D., Chicago Med. Sch. Di. Rad. & Nuc. Med.	Neguin, Noel D. M.D., Philippine Is. Int. Med.	Nielsen, Thomas J. M.D., Rush U. Oto. & Bronc.

Faculty Alphabetical List

Ninan, Mary
M.S.N., India
Comm. Hlth. Nsg.

Nisengolts, Meer
M.D., U.S.S.R.
Ped.

Nisius, Sharon
M.S., Rush U.
Med. Nsg.

Nootens, Raymond H.
M.D., U. of I. at Chicago
Ophthalmology, Pharmacology

Nora, Lois M.
M.D., Rush U.
Neuro. Sci.

Nora, Maris V.
Pharm.D, U. Ca.-Sn. Francisco
Ph.D., U. Ca.-Sn. Francisco
Pharmacology

Norman, Jeffrey K.
M.P.H., U. of Pittsburgh
Hlth. Syst. Mgt.

Noronha, Peter
M.B.B.S., India
Ped.(MTSN)

Norris-Berkemeyer, S.
M.S.N., Wayne State U.
Pediatric Nsg.

Northrop, Gretajo
M.D., Ph.D., U. of Wi.-Madison
Int. Med., Ob. & Gyne.

Norton, Arthur H.
M.D., Northwestern U.
Psychi.

Norusis, Marja
Ph.D., U. of Michigan
Prev. Med.

Noureldin, Abdel H.
M.D., Loyola U. of Chicago
Fam. Prac.(CH)

Novak, Elaine
B.S., U. of I. at Chicago
Rel. Hlth. Prg.

Novosel, Nickola
M.D., Loyola U. of Chicago
Ob. & Gyne.(CH)

Nowicki, Norbert J.
M.D., Loyola U. of Chicago
Ophthalmology

O'Brien, Donald E.
M.D., Rush Med. Col.
Int. Med.

O'Brien, Joan
M.S.N., Georgetown U.
Ob. & Gyne. Nsg.

O'Brien, John F.
M.D., U. of Washington
Int. Med.(CH)

O'Brien, Roberta J.
B.S., Marquette U.
Rel. Hlth. Prg.

O'Cherony, Domingo
M.D., Cuba
Ped.

O'Connor-Tyrrel, S.
M.S.N., Loyola U. of Chicago
Ob. & Gyne. Nsg.

O'Connor, Fredricka
M.S.N., U. of I. at Chicago
Psychi. Nsg.

O'Dell, Kevin B.
M.D., U. of Nebr. Med. Ctr.
Gen. Surg.

O'Donnell, James
Pharm.D, U. of Michigan
Pharmacology

O'Donnell, John W.
M.D., U. of I. at Chicago
Psychi.

O'Donoghue, J. Kevin
M.D., Georgetown U.
Int. Med.(WSUB)

O'Donoghue, Marianne N.
M.D., Georgetown U.
Dermatology(CH)

O'Donovan, T. Paul
M.B.B.Ch., Ireland
Int. Med.

O'Reilly, Jo Ann
M.A., U. of Michigan
Rel. Hlth. Prg.

Oates, Charles
M.D., U. of Louisville
Neuro. Sci.

Oder, Donald R.
M.B.A., U. of Chicago
Hlth. Syst. Mgt.

Odland, Blair
M.D., Wayne State U.
Int. Med.(GRNT)

Ogden, James D.
D.V.M., U. Of I. at Urbana
Im./Micro.

Ogrinc, Mary L.
M.S., Rush U.
Med. Nsg.

Ogston, Charles W.
Ph.D., Princeton U.
Im./Micro.

Oh, Sai Hwan
M.D., Korea
Ortho. Surg.

Ojea, Fernando A.
M.D., Argentina
Di. Rad. & Nuc. Med.

Oktener, Mine O.
M.D., Mexico
Ped.

Oldberg, Eric
M.D., Ph.D., Northwestern U.
Neuro. Surg.

Oldfield, R. Charles
M.D., Northwestern U.
Cv.T. Surg.(COMM)

Olsen, Norman M. C.
M.D., Baylor Col. of Med.
Ob. & Gyne.(SWED)

Olson, Bruce A.
M.D., Wayne State U.
Int. Med.(GRNT)

Olson, Linda G.
M.O.T., Western Michigan U.
Rel. Hlth. Prg.

Olson, Robert P.
M.D., U. of I. at Chicago
Ob. & Gyne.

Olwin, John H.
M.D., Rush Med. Col.
Gen. Surg.

Opacic, Karin J.
M.P.H.E., U. of I. at Chicago
Rel. Hlth. Prg.

Orban, Denes
M.D., Italy
Ob. & Gyne.

Orloff, Mollie
M.D., Med. Col. of Pa.
Psychi.

Orlowski, Janis M.
M.D., U. of Wi.-Madison
Int. Med.

Ornelas, Eugene
M.D.
Int. Med., Im./Micro.(MTSN)

Orth, Mary
M.S., U. of Wi.-Madison
Pediatric Nsg.(GRNT)

Orth, Michael W.
M.D., Loyola U. of Chicago
Ortho. Surg.

Ortigura, Anna
M.S.N., Northern Illinois U.
Geront. Nsg.

Ostrov, Eric
Ph.D., J.D., U. of Chicago
Psych. & Soc. Sci., Psychi.

Owens-Jones, Sandra
M.S.N., U. of Nebr. Med. Ctr.
Med. Nsg.

Oyama, Joseph H.
M.D., U. of I. at Chicago
Int. Med.

Pabst, Mary
M.S., U. of Md. Balt. Prof. Sch.
Ped. Nsg.

Pachman, Daniel J.
M.D., Duke U.
Ped.

Padilla, Basilio
M.D., Mexico
Ob. & Gyne.

Padonu, Georgia
Dr.P.H., Johns Hopkins U.
Comm. Hlth. Nsg., Psych. & Soc. Sci.

Page El, Edward
M.D., Meharry Med. Col.
Neuro. Sci., Ped.

Pahel, Kenneth R.
Ph.D., U. Of I. at Urbana
Psych. & Soc. Sci.

Paice, Judith
M.S., Rush U.
Surg. Nsg.

Pairitz, Donna
M.S., Rush U.
Surg. Nsg.

Pakalniskis, Aloyzas
M.D., U. of I. at Chicago
Di. Rad. & Nuc. Med.

Palac, Susan M.
M.D., Rush U.
Neuro. Sci.

Paller, Amy S.
M.D., Stanford U.
Dermatology, Ped.

Pamukcu, Rifat
M.D., U. of Wi.-Madison
Int. Med.

Panton, John H. M.D., Greece Ophthalmology(WSUB)	Paul, Harold A. M.D., U. of I. at Chicago Gen. Surg., Hlth. Syst. Mgt.	Perlia, Mildred M.S.N., Loyola U. of Chicago Med. Nsg.
Papierniak, Frank B. M.D., Case Western Reserve U. Urology	Paul, Harry A. M.D., U. of I. at Chicago Fam. Prac.(COMM)	Perlis, Deborah M.S.N., U. of Texas at Austin Ob. & Gyne. Nsg.
Parenti, Anthony M.D., Loyola U. of Chicago Gen. Surg.(COMM)	Paul, Howard S. M.D., Chicago Med. Sch. Psychi.	Perlman, Robert M.D., Ph.D., U. of Chicago Physiol.
Paris, Angelo M.D. Ped.	Paul, Karen A. M.A., U. of Notre Dame Hlth. Syst. Mgt.	Perret, Beverly B.S., Duquesne U. Hlth. Syst. Mgt.
Parisi, Bruce A. M.D., Mexico Fam. Prac.	Paul, S. Daman M.D., India Ped.	Perry, Clifford E. B.S., Loyola U. of Chicago Hlth. Syst. Mgt.
Parker, Stephanie M.S.N., U. of Rochester Surg. Nsg.	Paul, Tarak N. M.D., India Int. Med.	Perry, Kathleen M.S., Rush U. Geront. Nsg.
Parkhurst, George W. Ph.D., Southwest Ok. St. U. Pharmacology	Pauli, Bendict U. D.V.M., Switzerland Pathology, Biochem.	Pessis, Dennis A. M.D., Chicago Med. Sch. Urology
Parsons, Robert M.D., Rush Med. Col. Int. Med.	Paulissian, Edward B. M.D., Iran Gen. Surg.(SWED)	Petasnick, Jerry P. M.D., U. of Wi.-Madison Di. Rad. & Nuc. Med.
Partida, Jesus M. M.D. Fam. Prac.	Pavlou, Marcia Ph.D., Loyola U. of Chicago Psych. & Soc. Sci., Neuro. Sci.	Peters, John R. M.D. Gen. Surg.
Paskill, Joseph W. M.D., Temple U. Gen. Surg.	Payne, John A. M.D., U. of Rochester Int. Med.	Peterson, Arthur R. M.D., McGill U., Canada Int. Med.(SWED)
Passovoy, Robert D. M.D., U. of Md. Balt. Prof. Sch. Int. Med.	Payne, Joseph M.A., U. of Chicago Prev. Med.	Peterson, Wayne W. Fam. Prac.
Patejdl, William M.D., Northwestern U. Gen. Surg.(CH)	Pearlman, Eugene M.D., U. of Chicago Pathology(MTSN)	Petrak, Richard A. M.D., Chicago Med. Sch. Int. Med.
Patel, J. M. M.B.B.S., India Gen. Surg.	Pearson-McCreary, B. M.D., Loyola U. of Chicago Fam. Prac.(CH)	Petrak, Russell M. M.D., Rush U. Int. Med.
Patel, Jagdish R. M.B.B.S., India Int. Med.(MTSN)	Pearson, Roger W. M.D., U. of Washington Dermatology, Pathology	Petropoulos, A. Tom M.D., S.I.U. at Carbondale Int. Med.(CH)
Patel, Kanchan P. M.B.B.S., India Anesthes.(MTSN)	Peeples, Mark E. Ph.D., Wayne State U. Im./Micro.	Petty, David T. M.D., Northwestern U. Gen. Surg.(SWED)
Patel, Minaldevi M.D., India Psychi.	Pena, Alvaro E. M.D., U. of I. at Chicago Fam. Prac.	Phelan, John M. M.D., U. of Rochester Int. Med.
Patel, Narendra M.B.B.S., India Neuro. Sci.	Pencak, Marcia M.S., Rush U. Med. Nsg.	Phelan, William H. M.D., Albany Med. Col. Int. Med.
Patel, Suresh K. M.B.B.S., India Di. Rad. & Nuc. Med.	Penckofer, Sue M.S., U. of I. at Chicago Surg. Nsg.	Phillips, Alexander K. D.O., Osteo. Med. Surgery Col. M.D., Nrtheast. Oh. U. Th. Rad.
Patel, V. K. M.B.B.S., India Ped.	Pender, Nola Ph.D., Northwestern U. Comm. Hlth. Nsg.	Phillips, Kathleen M.S.N., Loyola U. of Chicago Comm. Hlth. Nsg.
Patel, Vinodbhai C. M.B.B.S., India Ob. & Gyne.(CH)	Penn, Richard D. M.D., Columbia U. Neuro. Surg.	Phillips, Richard L. M.D., U. of I. at Chicago Th. Rad.
Patras, Angie M.S., Rush U. Surg. Nsg.	Perakis, Emmanuel A. M.D., Loyola U. of Chicago Psychi.	Piehl, Michael R. M.D., U. of Wi.-Madison Pathology
Patterson, Joan E. M.D., U. of I. at Chicago Psychi.(MTSN)	Perkins, George L. M.D., Rush U. Psychi.	Pieper, William J. M.D., U. of I. of Chicago Psychi.
Patterson, Robert M.S., U. of I. at Chicago Im./Micro., Rel. Hlth. Prg.	Perlberg, Anna N. M.S.W., U. of I. at Chicago Hlth. Syst. Mgt.	Pierce, Eileen M.S.N., Boston Col. Pediatric Nsg.

Faculty Alphabetical List

Pierce, Frank A.
M.S.I.E., U. of Rhode Island
Hlth. Syst. Mgt.

Pierce, Mila I.
M.D., U. of Chicago
Ped., Int. Med.

Pierleoni, Robert G.
Ed.D., U. of Rochester
Rel. Hlth. Prg.

Pilar, Prospero B.
M.D., Philippine Is.
Pathology(CH)

Pineless, Gary R.
M.D., U. of Chicago
Int. Med.

Pinney, E. Virginia
M.S., I.I.T.
Rel. Hlth. Prg.

Pircon, Richard A.
M.D., Rush U.
Ob. & Gyne.

Pisani, Vincent D.
Ph.D., Loyola U. of Chicago
Psych. & Soc. Sci., Psychi.

Plate, Janet
Ph.D., Duke U.
Int. Med., Im./Micro.

Plunkett, Michael J.
M.D., U. of I. at Chicago
Fam. Prac.(SWED)

Pobanz, Donovan M.
M.D., In. U.-Purdue U. at Indpl.
Int. Med.

Podjasek, Jill
M.S., U. of I. at Chicago
Surg. Nsg.

Podorovsky, Lev
M.D., U.S.S.R.
Ped.

Polinski, Carol
M.S., Rush U.
Obstetrics & Gynecology Nsg.

Pollock, George H.
M.D., Ph.D., U. of I. at Chicago
Psychi.

Poma, Pedro A.
M.D., Peru
Ob. & Gyne.(MTSN)

Pomerantz, Marc A.
M.D., Temple U.
Gen. Surg.

Pomerantz, Rhoda S.
M.D., Med. Col. of Pa.
Int. Med., Prev. Med.

Ponce De Leon, Roland
M.D., Spain
Gen. Surg.(CH)

Ponglarpisit, Suporn
M.D., Thailand
Gen. Surg.(MTSN)

Ponnuru, Lalitha S.
M.D., India
Ped.

Ponsiglione, John D.
M.D., Chicago Med. Sch.
Int. Med.

Popper, Michael S.
M.D., U. of I. at Chicago
Int. Med.

Port, Jeffrey H.
M.D., U. of I. at Chicago
Int. Med.(CH)

Portes, Steven A.
M.D., Chicago Med. Sch.
Fam. Prac.(WSUB)

Post, John
M.D., U. of Chicago
Prev. Med.

Post, Melvin
M.D., Chicago Med. Sch.
Ortho. Surg.

Potempa, Kathleen
M.S., Rush U.
Geront. Nsg.

Potempa, Lawrence A.
Ph.D., Northwestern U.
Im./Micro.

Pottage, Jr., John
M.D.
Int. Med.

Poulos, George T.
M.D., Greece
Fam. Prac.(CH)

Poulson, Elizabeth
M.A. M.S., U. of I. at Chicago
Surg. Nsg.

Pozniak, Myron
M.D., Mexico
Di. Rad. & Nuc. Med.

Prancan, Arthur
Ph.D., U. of Okla.
Pharmacology

Prasad, Neerukonda
M.B.B.S., India
Anesthet.(CH)

Preston, William
M.D., U. of Co. H.S. Ctr.
Fam. Prac.(COMM)

Price, Susan K.
M.D., U. of Michigan
Neuro. Sci.

Priest, Fred O.
M.D., Rush Med. Col.
Ob. & Gyne.

Principe, John
M.D., Rush U.
Int. Med.

Prohov, Laura
M.S.W., U. of I. at Chicago
Obstetrics & Gynecology Nsg.

Prosen, Melvin
M.D., U. of Manitoba, Canada
Psychi.

Proteau, Roseanne V.
M.D., Loyola U. of Chicago
Ped., Prev. Med.

Puc, Frank C.
M.D., Loyola U. of Chicago
Ped.

Pucci, Rita
M.D., Rush U.
Gen. Surg.(GRNT)

Pugh, Elizabeth
Ph.D., Northwestern U.
Pediatrics Nsg.

Puray, Milagros D.
M.D., Philippine Is.
Int. Med.

Pusch, Allen L.
M.D., Johns Hopkins U.
Pathology(CH)

Pushkin, Edward A.
M.D., Va. Commonwealth U.
Ophthalmology

Pyati, Prahlad
M.B.B.S., India
Ortho. Surg.(MTSN)

Qazi, Masood A.
M.B.B.S., Pakistan
Int. Med.

Quill, Jr., George E.
M.D., Northwestern U.
Ortho. Surg.

Quinn, Lauretta
M.S., Rush U.
Med. Nsg.

Rabin, David N.
M.D., U. of I. at Chicago
Diag. Rad. & Nuc. Med.

Rademaker, Dennis E.
D.O., Chgo. Col. Osteo. Med.
Im./Micro.

Radfar, Baroukh
M.D., Iran
Ped.

Radhakrishnan, Jayant
M.B.B.S., India
Gen. Surg.(CH)

Radosevich, Cynthia A.
M.D., Northwestern U.
Int. Med.

Radvila, Izolda M.
M.D., U. of I. at Chicago
Ophthalmology

Radwanska, Ewa
M.D., Poland
Ob. & Gyne.

Rae, James L.
Ph.D., Michigan State U.
Physiol., Ophthalmology

Rafelson, Jr., Max E.
Ph.D., U. of Southern Ca.
Biochem.

Ragab, Medhat M.
M.B.B.Ch., India
Ped.

Rahn, Ada
M.D., Rush U.
Int. Med.

Raines, Dale S.
M.D., In. U.-Purdue U. at Indpl.
Int. Med.(CH)

Raines, Robert A.
M.D., U. of Ca.-San Diego
Int. Med.(CH)

Ramakrishna, B.
M.B.B.S., India
Int. Med.(CH)

Ramana, Pabbisetty V.
M.B.B.S., India
Ped.

Ramsey, Michael M.
M.D., Northwestern U.
Int. Med.

Ramsey, Ruth G.
M.D., U. of I. at Chicago
Di. Rad. & Nuc. Med.

Ramunis, Jerry M.D., Germany Fam. Prac.(GBUR)	Reddy, Jyothi J. M.B.B.S., India Ped.	Riff, Donald P. M.D., U. of I. at Chicago Int. Med.
Rana, Nasiruddin M.D., Pakistan Ob. & Gyne.(GRNT)	Reddy, Kurapati B. M.B.B.S., India Psychi.	Rinaldi, David M.D., Germany Ped.
Rane-Szostak, Donna M.S., Rush U. Geront. Nsg.	Reddy, Salitha M.B.B.S., India Th. Rad.	Rios, Eduardo Ph.D., Uruguay Physiol.
Range, Charles L. M.D., Loyola U. of Chicago Fam. Prac., Int. Med.(CH)	Redondo, Luis G. M.D., Cuba Ortho. Surg.(CH)	Ripeckyj, Andrew M.D., Northwestern U. Psychi.
Rao, A. R. M.B.B.S., India Th. Rad.	Reed, Byron M.D., U. of I. at Chicago Int. Med.(MTSN)	Ristanovic, Ruzica M.D., Yugoslavia Neuro. Sci.(MTSN)
Rao, Nagulapalli M.B.B.S., India Gen. Surg.(WSUB)	Reese, Thomas C. M.D., U. of I. at Chicago Int. Med.	Rivero, Dennis P. M.D., Venezuela Ortho. Surg.
Rao, Sripathy M.D., India Ped.	Regal, Edward M. M.D., U. of I. at Chicago Int. Med.(MTSN)	Rivers, David W. Ph.D., Loyola U. of Chicago Fam. Prac.
Raphaeli, Naghum M.D. Ob. & Gyne.(SWED)	Reid, Connie M.S., Rush U. Geront. Nsg.	Rizk, Sherif L. M.D. Gen. Surg.
Ratajik, Alyda R. M.D., U. of I. at Chicago Ped.(CH)	Reid, Robert H. M.D., Cornell Col. Int. Med.	Roach, William J.D., Vanderbilt U. Hlth. Syst. Mgt.
Rathi, Manohar L. M.D., India Ped.(CH)	Reifman, Robert A. M.D., U. of I. at Chicago Psychi.	Roberg, Norman B. M.D., Rush Med. Col. Int. Med.
Rattan, Pradeep M.B.B.S., India Psychi.	Reinstein, Michael J. M.D., Northwestern U. Psychi.(MTSN)	Roberg, O. Theodore M.D., Harvard U. Gen. Surg.(SWED)
Ratusnik, David L. Ph.D., Northwestern U. Rel. Hlth. Prg., Oto. & Bronc.	Reisberg, David J. D.D.S., Case Western Reserve U. Gen. Surg., Pls. & Rec. Surg.(WSUB)	Roberts, Jack C. M.D., U. of I. at Chicago Cv.T. Surg.(CH)
Rauholt, Dorthe M.D., Loyola U. of Chicago Fam. Prac.(COMM)	Rejowski, James E. M.D., Rush U. Oto. & Bronc.	Roberts, Jimmy M.D., U. of Ca.-Irvine Int. Med.
Ray, Ishani M.B.B.S., India Ped.	Rennie, I. Drummond M.D., U.K. Int. Med.(WSUB)	Roberts, Kathryn M.A., New York U. Geront. Nsg.
Raycraft, William B. M.D., Loyola U. of Chicago Ped.(WSUB)	Reyes, Marcelino G. M.D., Philippine Is. Neuro. Sci.(MTSN)	Robinson, Warren M.D. Fam. Prac.
Raymond, Mary A. M.S., Rush U. Surg. Nsg.	Rhim, Ihn G. M.D., Korea Anesthes.(CH)	Robrock, James L. M.D., Ohio St. U. Pls. & Rec. Surg.
Raymond, Sidney W. M.D., U. of I. at Chicago L.I.B., Wayne State U. Gen. Surg.(WSUB)	Richmond, G. Wendell M.D., U. of Okla. H.S. Ctr. Im./Micro., Int. Med.	Rodriguez, Juan A. M.D., Cuba Gen. Surg.(CH)
Rayudu, Garimella V. Ph.D., McGill U., Canada Di. Rad. & Nuc. Med., Rel. Hlth. Prg.	Richmond, Kenneth L. M.D., Mexico Ob. & Gyne.	Rodriquez, Jack V. M.D., Mexico Psychi.
Razim, Edward A. M.D., Northwestern U. Oto. & Bronc.	Ricker, Alfred P. M.D., Germany Fam. Prac.(CH)	Roeber, Charlotte M.S., Rush U. Psychi. Nsg.
Razma, Antanas G. M.D., U. of I. at Chicago Internal Medicine (CH)	Rieckmann, Karl H. W. M.D., Australia Pharmacology	Rogers, Richard Ph.D., Utah St. U. Psych. & Soc. Sci., Psychi.
Ready, Richard M.D., Creighton U. Neuro. Surg.	Rieger, Patricia M.D., Michigan State U. Int. Med.	Rojas, Manuel O. M.D., Spain Ped.(CH)
Reddi, Cattamanchi M.B.B.S., India Ped.(CH)	Ries, Michael M.D., Chicago Med. Sch. Int. Med.	Rollow, William C. M.D., Stanford U. Fam. Prac.
Reddi, K. T. M.B.B.S., India Ped.	Riff, Alison M.S., U. of I. at Chicago Surg. Nsg.	Romeisser, Jr., Adam M.D., Northwestern U. Gen. Surg.

Faculty Alphabetical List

Rooney, Anne
M.S., Rush U.
Med. Nsg.

Rooney, Peter
M.D., Mexico
Urology

Rorig, James C.
M.D., U. of I. at Chicago
Int. Med.

Rose, Raymond F.
M.D., Washington U.
Anesthes.

Roseman, David L.
M.D., U. of I. at Chicago
Gen. Surg.

Rosen, Robert L.
M.D., Michigan State U.
Int. Med.

Rosenberg, Aaron
M.D., Albany Med. Col.
Ortho. Surg.

Rosenberg, Alan S.
M.D., Chicago Med. Sch.
Int. Med.(COPL)

Rosenberg, Lisa K.
M.Ed., Loyola U. of Chicago
Fam. Prac.

Rosenberg, Marvin S.
M.D., U. of I. at Chicago
Int. Med.

Rosenberg, Michael A.
M.D., Northwestern U.
Ophthalmology

Rosenblate, Howard
M.D., U. of I. at Chicago
Int. Med.

Rosenblum, Joseph
D.O., Chgo Col. Osteo. Med.
Int. Med.

Rosenbush, Stuart
M.D.
Int. Med.

Rosenthal, Ira M.
M.D., In. U.-Purdue U. at Indpl.
Ped.

Rosenthal, Maurice J.
M.D., U. of I. at Chicago
Psychi.

Rosenthal, Ruth B.
M.D., U. of Wi.-Madison
Psychi.(MTSN)

Rosenthal, Stephen
M.D.
Gen. Surg.

Roskelley, Rigby C.
M.D., Northwestern U.
Int. Med.

Rosman, Joseph K.
M.D., U. of I. at Chicago
Int. Med.(MTSN)

Rossoff, Arthur H.
M.D.
Int. Med.

Rostenberg, Jr., Adolph
M.D., McGill U., Canada
Dermatology

Rostoker, William
Ph.D., Lehigh U.
Ortho. Surg.

Rotenberg, Morray L.
M.D., Ohio St. U.
Int. Med.

Roth, Mary B.
M.S., Nat'l. Col. of Ed.
Rel. Hlth. Prg.

Rothchild, John A.
D.D.S., U. of I. at Chicago
Gen. Surg.

Rothstein, Ruth M.
Hlth. Syst. Mgt.

Rotman, Carlos A.
M.D., Argentina
Ob. & Gyne.(GRNT)

Rovick, Allen
Ph.D., U. of I. at Chicago
Physiol.

Rovtar, Julie
M.S., Boston Col.
Surg. Nsg.

Rowland, Jr., Kendrith M.
M.D., U. of I. at Chicago
Int. Med.

Rozenfeld, Martin
Ph.D., Chicago Med. Sch.
Th. Rad., Rel. Hlth. Prg.

Roztocynski, Henryk
M.D., Poland
Gen. Surg.(MTSN)

Rubenstein, Jonathan B.
M.D., Rush U.
Ophthalmology

Rubenstein, Marvin
Ph.D., U. of I. at Chicago
Urology

Rubenstein, Albert I.
M.D., U. of Md. Balt. Prof. Sch.
Pathology(MTSN)

Rubin-Terrado, Marilyn
M.S., U. of Ca.-Berkeley
Geront. Nsg.

Rubin, Ronald G.
M.D., Chicago Med. Sch.
Psychi.

Ruff, William J.
M.D., Loyola U. of Chicago
Fam. Prac.(CH)

Ruggie, Neal T.
M.D., Johns Hopkins U.
Int. Med.

Russe, Henry P.
M.D., U. of Chicago
Int. Med.

Russell, Eric
M.D., New York U.
Di. Rad. & Nuc. Med.

Russell, Hugh D.
M.D., Rush U.
Int. Med.(MTSN)

Ryan, Edward C.
M.D., U. of I. at Chicago
Ob. & Gyne.(CH)

Ryan, Norman
M.D., Austria
Fam. Prac.

Ryan, Will G.
M.D., Baylor Col. of Med.
Int. Med.

Ryd, Wesley H.
M.D., U. of I. at Chicago
Fam. Prac.(CH)

Saavedra, Richard A.
M.D., U. of I. at Chicago
Int. Med.(CH)

Sabelli, Hector C.
M.D., Ph.D., Argentina
Psychi.

Saclarides, Theodore
M.D.
Gen. Surg.

Sadeghieh, Bahram
M.D., Iran
Ob. & Gyne.

Sadoughi, Nader
M.D., Iran
Urology

Sadove, Max S.
M.D., U. of Md. Balt. Prof. Sch.
Anesthes.

Saffold, Carol W.
M.D., Rush U.
Ob. & Gyne.

Salamone, Frank
M.D., Marquette U.
Ob. & Gyne.(CH)

Saleh, Nabil M.
M.B., B.Ch., Egypt
Ped.

Salloway, Jeffrey
Ph.D., Boston U.
Psych. & Soc. Sci., Hlth. Syst. Mgt.

Salomon, Alexander
M.D., Hungary
Int. Med.

Salomon, Jacob
M.D., Loyola U. of Chicago
Gen. Surg.

Salta, Raul
M.D., Philippine Is.
Ped.(MTSN)

Salvi, Sharad
M.B.B.S., India
Ped.(CH)

Salzman, Gary H.
M.D., Rush U.
Int. Med.

Samelson, Charles F.
M.D., U. of I. of Chicago
Psychi.

Samuel, Molly
M.D., Loma Linda U.
Fam. Prac.

Samuelson, Dean C.
M.D., Harvard U.
Fam. Prac.

Sanborn, Earl B.
M.D., Northwestern U.
Gen. Surg.(SWED)

Sanchez, Jerry
M.D., U. of Mn. of Mnpl. St. Paul
Ped.

Sanchez, Jose R.
M.D., Cuba
Psychi.

Sandell, Linda
Ph.D., Northwestern U.
Biochem., Ortho. Surg.

Sanders, Donald R.
M.D., U. of I. at Chicago
Ophthalmology

Sanders, Marc R.
M.D., Mexico
Anesthet.

Sandrick, Edward
M.S., Rush U.
Hlth. Syst. Mgt.

Sandrolini, James A.
M.D., U. of I. at Chicago
Gen. Surg.

Santander, Marc
M.D., Cuba
Anesthet.(CH)

Santos, Antonio L.
M.D., Philippine Is.
Gen. Surg.

Santucci, Barbara
M.D., Loyola U. of Chicago
Ped., Int. Med.

Sapala, Shirley
M.S.N., Ohio St. U.
Comm. Hlth. Nsg.

Sarin, Pramilla
M.B.B.S., Burma
Th. Rad.(CH)

Saroya, Kurubarahalli
M.B.B.S., India
Th. Rad.

Sassetti, Richard J.
M.D., U. of I. at Chicago
Int. Med., Im./Micro.

Sastray, Vasantha
M.B.B.S., India
Ob. & Gyne.

Sathoff, Rodney
M.D.
Gen. Surg.

Sauerberg, Steven K.
M.D., Rush U.
Fam. Prac.(COMM)

Savage, Judith G.
M.D., Meharry Med. Col.
Ped.

Savino, Anthony W.
M.D., Rush U.
Ortho. Surg.

Savoy, Suzanne
M.N., U. of Ca.-L.A.
Surg. Nsg.

Sawhani, Omprakash
M.B.B.S., India
Ped.(CH)

Sawyer, William H.
Ph.D., Case Western Reserve U.
Pathology(MTSN)

Saxena, Virenda S.
M.B.B.S., India
Th. Rad.(CH)

Saxon, Leonard T.
M.D., Loyola U. of Chicago
Fam. Prac.(WSUB)

Sayana, Vijaya
M.B.B.S., India
Ped.(GRNT)

Schabinger, Paul
M.D., U. of I. at Chicago
Th. Rad.

Schaff, Mary R.
M.D., U. of Cincinnati
Psychi.

Schaffner, John A.
M.D., Rush U.
Int. Med.

Schajowicz, Fritz
M.D., Austria
Pathology, Ortho. Surg.

Schauf, Charles
Ph.D., U. of Chicago
Physiol., Neuro. Sci.

Schechter, Esther M.
Ph.D., U. of Chicago
Im./Micro.

Scheer, Steven J.
M.D., Northwestern U.
Ortho. Surg.(MTSN)

Scheetz, Annette A.
M.D., U. of I. at Chicago
Int. Med.(MTSN)

Scheftner, William A.
M.D., U. of Wi.-Madison
Psychi.

Scheive, Glenn R.
D.D.S., Loyola U. of Chicago
Gen. Surg.(MTSN)

Schenck, Robert R.
M.D., U. of I. at Chicago
Pls. & Rec. Surg., Ortho. Surg.

Schenk, Alan G.
M.D., U. of I. at Chicago
Ophthalmology

Schenk, Robert K.
M.D., Switzerland
Ortho. Surg., Pathology

Scheribel, Karl
M.D., Loyola U. of Chicago
Ophthalmology

Schewitz, Lionel J.
M.B.B.Ch., South Africa
Ob. & Gyne.

Schewitz, Sheila
M.A., Northwestern U.
Oto. & Bronc., Rel. Hlth. Prg.

Schick, Armin F.
M.D., U. of Chicago
Int. Med.

Schick, Vernon F.
M.D., Rush Med. Col.
Int. Med.(CH)

Schillo, Richard
M.S., Rush U.
Surg. Nsg.

Schlecht, Hans W.
M.D., Austria
Fam. Prac.(GRNT)

Schlesinger, Marc L.
M.D., Loyola U. of Chicago
Int. Med.(COPL)

Schmidt, Anthony
Ph.D., Princeton U.
Anat.

Schmidt, Paul J.
M.D., Rush U.
Int. Med.

Schmidt, Ronald T.
M.A., Mundelein Col.
M.A., Italy
Hlth. Syst. Mgt.

Schmidtke, Wendell H.
M.D., Northwestern U.
Gen. Surg.

Schneider, Anne S.
Ph.D., Northern Illinois U.
Psych. & Soc. Sci.

Schneider, Catherine
M.S., Rush U.
Geront. Nsg.

Schneider, Patricia
M.S., U. of I. at Chicago
Obstetrics & Gynecology Nsg.

Schneiderman, Elyse
M.D.
Int. Med.

Schoen, Robert E.
Ph.D., U. of Tx. Med., Galv.
D.O., Chgo. Col. Osteo. Med.
Anesthet.

Schoenberger, James A.
M.D., U. of Chicago
Prev. Med., Int. Med.

Schoenenberger, Joseph
Ph.D., Florida St. U.
Psych. & Soc. Sci., Prev. Med.

Schorn, Thomas
M.D.
Int. Med.

Schraufnagel, Mary N.
M.D., U. of I. at Chicago
Int. Med.

Schreiber, Nancy
M.S.N., Loyola U. of Chicago
Med. Nsg.

Schreiber, Solomon
M.D., New York U.
Pathology(CH)

Schroeder-Kearns, C
B.S., U. of Wi.-Madison
Rel. Hlth. Prg.

Schuessler, Roger R.
M.D., Washington U.
Int. Med.

Schuetz, John N.
M.D., Hungary
Ob. & Gyne.

Schuh, Daniel R.
M.B.A., U. of Chicago
Hlth. Syst. Mgt.

Schulte, Eric
M.D., Northwestern U.
Int. Med.

Schultz, Stephen M.
M.D., U. of Mn. of Mnpl. St. Paul
Int. Med.

Schuytema, Eunice E.
Ph.D., U. of Iowa
Im./Micro.

Schwartz, Daniel
M.D., Baylor U.
Pathology

Schwartz, David
Ph.D., Chicago Med. Sch.
Biochem., Anat.

Schwartz, Maurice A.
M.D., U. Of I. at Urbana
Int. Med.(MTSN)

Schwartz, Melvin M.
M.D., U. of Mn. of Mnpl. St. Paul
Pathology

Schwartz, Michael R.
M.D., New York Med. Col.
Neuro. Sci.(CH)

Faculty Alphabetical List

Schwartz, Theodore B.
M.D., Johns Hopkins U.
Int. Med.

Schwartzman, William A.
M.D., U. of Southern Ca.
Int. Med.

Schwarz, Marvin
M.D., Wayne State U.
Psychi.

Schwer, William
M.D., U. of I. at Chicago
Fam. Prac.(CH)

Scupham, William K.
M.D., Northwestern U.
Int. Med.

Seale, Raymond
Ph.D., U. of Mn. of Mnpl. St. Paul
Anat.

Secemsky, Solomon
M.D.
Int. Med.

Seetapun, Anun
M.D., Thailand
Pls. & Rec. Surg.(CH)

Segreti, John
M.D., Rush U.
Int. Med.

Seidman, Leon
M.D., Rush Med. Col.
Gen. Surg.(MTSN)

Seim, Sandra K.
M.S., Northwestern U.
M.B.A., U. of Chicago
Pathology, Hlth. Syst Mgt.

Seker, Jr., Shanti J.
M.B.B.S., India
Ped.(MTSN)

Sella, Michael Z.
M.D., Switzerland
Neuro. Sci., Ped.

Seltzer, James E.
D.O., Chgo. Col. Osteo. Med.
Ob. & Gyne.

Semprevivo, Diane
M.S., U. of Pittsburgh
Obstetrics & Gynecology Nsg.

Serrato-Benvenuto, M.
M.D., Italy
Ped.

Serry, Cyrus
M.D., Iran
Cv.T. Surg.

Serxner, Brant A.
M.A., U. of Chicago
Hlth. Syst. Mgt.

Seshadri, Kandiyur
M.B.B.S., India
Anesthes.(CH)

Steir, Ramsey
M.D., Ohio St. U.
Gen. Surg.

Shader, Noreen
M.S.
Surg. Nsg.

Shafer, Sid J.
M.D., U. of I. at Chicago
Ortho. Surg.

Shah, Ila A.
D.Ped., India
Ped.(CH)

Shah, Jagdish R.
M.D., India
Int. Med.

Shah, Mahendra M.
M.B.B.S., India
Int. Med.(CH)

Shah, Rajendra M.
M.B.B.S., India
Pls. & Rec. Surg.(CH)

Shahinpour, Nayereh
M.S.N., Wayne State U.
Med. Nsg.

Shallat, Charles H.
M.D., U. of I. at Chicago
Int. Med.

Shankar, Mani
M.S., U. of Cincinnati
M.B.A., Washington St. U.
Hlth. Syst. Mgt.

Shannon, Carol
M.S.N., Loyola U. of Chicago
Surg. Nsg.(MTSN)

Shannon, Iris
M.S., U. of Chicago
Comm. Hlth. Nsg.

Shannon, Kathleen
M.D.
Int. Med.

Shapiro, Jeffrey D.
M.D., Chicago Med. Sch.
Anesthes.

Shapiro, Jules S.
M.D., U. of I. at Chicago
Ortho. Surg.

Shapiro, Roberta J.
M.P.H., Yale U.
M.B.A., U. of Chicago
Hlth. Syst. Mgt.

Shariff, Nayeem
M.D., India
Fam. Prac.(CH)

Sharma, Anu G.
M.B.B.S., India
Ped.

Sharma, Rajesh
M.B.B.Ch., Kenya
Int. Med.

Sharma, Sudarshan
M.B.B.S., India
Ob. & Gyne.

Sharon, Greg E.
M.D., Rush U.
Int. Med.

Shaw, Steven M.
M.D., U. of Arizona
Dermatology

Shearon, Kenneth
D.D.S., Northwestern U.
Gen. Surg.

Sheehan, Maureen
M.S., U. of Michigan
Med. Nsg.

Sheinkop, Mitchell B.
M.D., Chicago Med. Sch.
Ortho. Surg.

Shekarloo, Afrasiab
M.D., Iran
Ob. & Gyne.

Shekleton, Maureen
D.N.Sc., Rush U.
Med. Nsg.

Sheldon, Stephen H.
D.O., Chgo. Col. Osteo. Med.
Ped., Prev. Med.

Shenker, David M.
M.D., Tufts U.
Neuro. Sci.

Sheridan, Patrick
M.D., Rush U.
Int. Med.

Sherin, Kevin
M.D., Loyola U. of Chicago
Fam. Prac.(CH)

Sherman, Sanford S.
M.D., Rush U.
Int. Med.

Shewmake, Floyd
M.D., U. of I. at Chicago
Int. Med.

Shidler, Helen
M.S., Rush U.
Med. Nsg.

Shima, Arthur T.
M.D., Loyola U. of Chicago
Anesthes.(WSUB)

Shima, Mark A.
M.D.
Int. Med.

Shin, Sung S.
M.D., Korea
Pathology

Shivde, Pinakin S.
M.D., India
Ped.(CH)

Shmigelsky, Irene
M.D., U. of I. at Chicago
Ped.

Shobbris, Martin
M.D., Ph.D., Germany
Fam. Prac.(CH)

Shorey, William D.
M.D., Harvard U.
Gen. Surg.

Shorr, Gail J.
M.D., U. of I. at Chicago
Ped.

Short, John J.
M.M., Northwestern U.
Rel. Hlth. Prg.

Short, Ronald M.
M.D., Hahnemann Med. Col.
Int. Med.

Shott, Susan
Ph.D., U. of Chicago
Prev. Med.

Shover, James D.
B.S., Western Illinois U.
Rel. Hlth. Prg.

Showel, John L.
M.D., U. of I. at Chicago
Int. Med.

Shrock, Peter
M.B.B.Ch., South Africa
Gen. Surg., Ped.

Shroff, Subodh S.
M.B.B.S., India
Int. Med.(MTSN)

Shubik, Philippe
M.B.B.Ch., U.K.
Pathology

Shvartsman, Leonid M.D., U.S.S.R. Psychi.(MTSN)	Sittler, Stephen S. M.D., Case Western Reserve U. Int. Med.(CH)	Smith, Kenneth Ph.D., U.K. Physiol.
Siddiqi, Raffat A. M.B.B.S., Pakistan Ped.	Sivarajan, Thenmathi M.B.B.S., India Ped.	Smith, Xavier P. M.S., Rush U. Med. Nsg.
Sidell, Richard M.D., Wayne State U. Ortho. Surg.	Sivertsen, Lynn M.S.N., U. of I. at Chicago Geront. Nsg.	Snapp, Marshall M.D., U. of Virginia Int. Med.
Siegel, Gordon J. M.D., Chicago Med. Sch. Oto. & Bronc.(MTSN)	Sivesind, Debra M.S.N., U. of Nebr. Med. Ctr. Psychi. Nsg.	Snell, R. Jeffrey M.D., Rush U. Int. Med.
Siegel, Irwin M.D., Northwestern U. Ortho. Surg., Neuro. Sci.	Skarpathiotis, G. M.D., Greece Ped.	Snyder III, Edward J M.D. Gen. Surg.
Siegel, Joan Ph.D., U. of Ma., Amherst Im./Micro., Rel. Hlth. Prg.	Skul, Bozica M.D., Yugoslavia Fam. Pract.	Snyder, Darrell Ph.D., U. of South Dakota Psych. & Soc. Sci.(MLSQ)
Siegfried, J. David M.D., U. of I. at Chicago Int. Med.(COPL)	Skul, Vesna M.D., Rush U. Int. Med.	Snyder, Leonard M.D., Northwestern U. Gen. Surg.(COPL)
Sigardson, Katherine M.S., DePaul U. Surg. Nsg.	Skul, Vladimir M.D., Yugoslavia Ob. & Gyne.	Snyder, Marsha M.S.N., U. of I. at Chicago Psychi. Nsg.
Siglin, Martin G. M.D., Rush U. Int. Med.	Sky Peck, Howard H. Ph.D., U. of Southern Ca. Biochem.	Snyder, Sheryl P. M.D., U. of I. at Chicago Pathology
Silins, Astrida I. M.D., Germany Anesthes.	Slack, Jeanne M.S., Rush U. Surg. Nsg.	Sobin, W. Harley M.D., New York U. Int. Med.(MTSN)
Silins, V. Raymond M.D., Latvia Int. Med.	Slayton, Robert E. M.D., U. of Chicago Int. Med.	Sochacki, Stacy L. M.S., SUNY Col. at Buffalo Hlth. Syst. Mgt.
Silver, Bruce A. M.D., Loyola U. of Chicago Di. Rad. & Nuc. Med.	Slezak, George C. M.D., U. of I. at Chicago Gen. Surg.(COMM)	Sodetz, Richard A. M.D., U. of I. at Chicago Ortho. Surg.(CH)
Silver, Marc A. M.D., Rush U. Int. Med.	Sloan, Sheldon M.D., Rush U. Int. Med.	Soenksen, Patricia A. M.A., U. of Northern Iowa Rel. Hlth. Prg.
Silver, Michael M.D., Albany Med. Col. Int. Med.	Slocum, Peter A. M.D., U. of Wi.-Madison Urology	Sokalski, Steven J. D.O., Chgo. Col. Osteo. Med. Int. Med.(CH)
Silverstein, Douglas M. M.H.A., U of Michigan Hlth. Syst. Mgt.	Slodki, Sheldon M.D., U. of I. at Chicago Int. Med.(MTSN)	Sokhey, B. J. M.B.B.S., Burma Psychi.(CH)
Simon, Laura M.D. Int. Med.	Smith, Claire M.D., Loyola U. of Chicago Di. Rad. & Nuc. Med.	Sokol, Norton M. M.D., U. of I. at Chicago Int. Med.(MTSN)
Simonton, Leslie M.D. Ob. & Gyne.	Smith, Connie M.S., Rush U. Surg. Nsg.	Solid, Rhonda M.S.N., U. of Rochester Comm. Hlth. Nsg.
Sinclair, Donald M. M.B.B.Ch., South Africa Anesthes.	Smith, Daniel J. M.D., Rush U. Int. Med.	Soliday, Norman H. M.D., U. of Chicago Int. Med.(CH)
Singh, Kalpana M.B.B.S., India Ob. & Gyne.(MTSN)	Smith, Earl C. M.D., U. of Pittsburgh Int. Med.(MTSN)	Soltes, Steven F. M.D., Loyola U. of Chicago Oto. & Bronc.
Singh, Monmohan M.B.B.S., India Ortho. Surg.	Smith, Edwin M. M.D., Northwestern U. Dermatology	Somberg, Alvin M.D., Yale U. Int. Med.(SWED)
Singh, Rama S. M.B.B.S., India Ped.	Smith, Florence A. M.D., U. of Pittsburgh Ob. & Gyne.(CH)	Sommerfeldt, Lorraine M.D., Rush U. Psychi.
Sinioris, Marie E. M.P.H., U. of I. at Chicago Hlth. Syst. Mgt.	Smith, Garth D. M.D., Northwestern U. Psychi.	Sompalli, P. Naidu M.B.B.S., India Gen. Surg.
Sipkins, James H. M.D., U. of Mn. of Mnpl. St. Paul Int. Med.	Smith, Joyce M. M.D., U. of I. at Chicago Ped.	Sood, Naresh B.S., India Rel. Hlth. Prg.

Faculty Alphabetical List

Sorrells-Jones, Jean
Ph.D., U. of Co. H.S. Ctr.
Pediatric Nsg.

Sosenko, George R.
M.D., Chicago Med. Sch.
Urology

Southwick, Harry W.
M.D., Harvard U.
Gen. Surg.

Sovik-Haviley, Corinne
M.S., Rush U.
Comm. Hlth. Nsg.

Sowa, Diane
M.B.A., DePaul U.
Rel. Hlth. Prg.

Spaeth, Ralph
M.D., Case Western Reserve U.
Ped.(CH)

Sperling, Richard L.
M.D., U. of I. at Chicago
Pls. & Rec. Surg.(SKVH)

Spies, Harold W.
M.D., George Washington U.
Prev. Med.

Spies, Bruce D.
M.D., Rush U.
Anesthet.

Spinazzola, Angelo J.
M.D., U. of I. at Chicago
Cv. T. Surg.(CH)

Spindel, David
M.D., Chicago Med. Sch.
Ophthalmology(MTSN)

Spinka, Harold M.
M.D., Chicago Med. Sch.
Dermatology(CH)

Spiro, Barbara
M.D., Switzerland
Ophthalmology

Sprague, Stuart M.
D.O., Michigan State U.
Int. Med.

Springer, George
M.D., U. of Tx. Med. Brch., Galveston
Anesthet.

St. Clair, Doris E.
M.D., Northwestern U.
Psychi.

Staats, David O.
M.D., U. of Chicago
Int. Med.(MTSN)

Stabell, Erik C.
M.D., Rush U.
Int. Med.

Stabell, Kristen M.
M.D., Rush U.
Int. Med.

Stack, Caryn
M.D., Loyola U. of Chicago
Di. Rad. & Nuc. Med.

Stagno, Anthony
M.D., Italy
Ob. & Gyne.

Staisz-Baczek, Maria
M.D., Poland
Ped.(MTSN)

Stallings, Susan
M.S., Boston U.
Rel. Hlth. Prg.

Stamat, Nicholas
M.D.
Ped.

Stamler, Jeremiah
M.D.
Int. Med.

Stampley, Jan O.
M.D., Rush U.
Psychi.

Stankevych, George
M.D., Mexico
Ob. & Gyne.

Stanley, Robert E.
M.D., U. of I. at Chicago
Int. Med.

Staren, Edgar
M.D.
Gen. Surg.

Starsiak, Diane L.
M.D., U. of I. at Chicago
Ped.

Stavinga, Ronald E.
M.D., U. of I. at Chicago
Int. Med.

Stearns, Amy E.
Ph.D., U. of Detroit
Psych. & Soc. Sci., Ped.

Steed, W. David
M.D., Northwestern U.
Psychi.

Stefancik, Rudy W.
M.D., U. of Tx. Med. Brch., Galveston
Pathology

Stefani, Stefano S.
M.D., Italy
Th. Rad.(MTSN)

Stefoski, Dusan
M.D., Yugoslavia
Neuro. Sci.

Stein, Edward
M.D., Johns Hopkins U.
Psychi.

Stein, Peter M.
M.D., Johns Hopkins U.
Int. Med.

Stein, Robert
M.D., Austria
Pathology

Stein, Robert M.
M.D., Chicago Med. Sch.
Ophthalmology

Stein, Robert N.
M.D., Chicago Med. Sch.
Int. Med.(CH)

Stein, Robert W.
M.D., Rush U.
Neuro. Sci.

Steinecker, Gary A.
M.D., Loyola U. of Chicago
Int. Med.(CH)

Stephens, Alice E.
Ph.D., Florida St. U.
Psych. & Soc. Sci.(MLSQ)

Stepto, Robert C.
M.D., Ph.D., Howard U.
Ob. & Gyne.(MTSN)

Sterman, Ellen
M.D.
Ob. & Gyne.

Stern, Dean S.
D.P.M., Il. Col. Podiatric Med.
Ortho. Surg.

Stetson, John B.
M.D., Harvard U.
Anesthet.

Stevens, Marietta
M.N., U. of Washington
Psychi. Nsg.

Stibolt, Thomas
M.D., Rush U.
Int. Med.

Stine, Robert H.
M.D., Jefferson Med. Col. of Phila.
Ped.

Stine, Terry M.
M.D., U. Louisville
Int. Med.

Stocker, Michael
M.D., U. of Wi.-Madison
Fam. Prac., Int. Med.

Stohle, Michael R.
D.D.S., U. of I. at Chicago
Gen. Surg.

Stoioff, Madonna
M.A., Kent St. U.
Oto. & Bronc., Rel. Hlth. Prg.

Stokar, Elliot
M.D.
Int. Med.

Stolar, Joel
M.D., Wayne State U.
Ophthalmology

Stoops, Joyce
M.S., In. U.-Bloomington
Surg. Nsg.(GRNT)

Storrs, Paul
M.D.
Ortho. Surg.

Strachan, Kathleen
M.S.N., Loyola U. of Chicago
Pediatrics Nsg.

Strasser, Stephan
M.D., Chicago Med. Sch.
Di. Rad. & Nuc. Med.

Strassner, Howard
M.D., U. of Chicago
Ob. & Gyne.

Straus, Albert K.
M.D., Northwestern U.
Ph.D., U. of I. at Chicago
Gen. Surg.

Straus, Francis H.
M.D., Harvard U.
Gen. Surg.

Strayhorn, Earlene E.
M.D., Rush U.
Ob. & Gyne.

Strehl, Francis W.
M.D., U. of I. at Chicago
Gen. Surg.(COMM)

Stringer, Jr., Nelson H.
M.D., Meharry Med. Col.
Ob. & Gyne.

Strohl, Lee H.
M.D., Yale U.
Dermatology

Strokosch, Gary R.
M.D., U. of I. at Chicago
Ped.

Strote, Scott E. M.D., S.I.U. at Carbondale Ob. & Gyne.(CH)	Summers, Sondra L. M.D., Rush U. Ob. & Gyne.	Tausk, Kasriel M.D. Int. Med.
Strozier, Charles P. Ph.D., U. of Chicago Psychi.	Sun, Te Ching B.S., China Ortho. Surg.	Taylor IV, Samuel G. M.D., U. of Saskatchewan, Canada Int. Med.
Strub, Margaret B. M.D., Northwestern U. Int. Med.	Sundaram, Padma S. M.B.B.S., India Ortho. Surg., Ped.	Taylor, Douglas W. M.D., U. of Tx. Med. Brch., Galveston Fam. Prac.(GBUR)
Struble, Laura M.S., U of Michigan Geront. Nsg.	Sunseri, Albert J. Ph.D., U. of Pittsburgh Prev. Med.	Taylor, Kathleen M. M.S., U. of Wi.-Stout Rel. Hlth. Prg.
Strzembosz, Patricia M.D., Loyola U. of Chicago Ped.	Susmano, Armando M.D., Argentina Int. Med.	Taylor, Luis G. M.D. Ped.
Strzyz, James M.D., U. of I. at Chicago Urology(CH)	Swarajyalakshmi, L. M.B.B.S., India Ortho. Surg.	Taylor, Lyndon M.D., Mexico Ob. & Gyne.
Stuck, Gary D. D.O., Osteo. Med. Surgery Col. Fam. Prac.	Swarts, Charles L. M.D., New York Med. Col. Ped.(WSUB)	Taylor, Prentiss M.D., Harvard U. Int. Med.
Stumpe, Marjorie M.A., Governors State U. Rel. Hlth. Prg.	Swedo, Gregory J. M.D., Rush U. Pathology	Taylor, Samuel G. M.D., U. of Chicago Int. Med.
Stuppy, George W. M.D., Ph.D., U. of Chicago Int. Med.	Swimmer, Glenn M.A., S.I.U. at Carbondale Psych. & Soc. Sci.	Tedesco, Dominic M.D. Gen. Surg.
Sturdevant, Frank M.D., U. of Iowa Ob. & Gyne.	Sytsma, John M.D., Northwestern U. Psychi.(CH)	Teji, Jagjit S. M.B.B.S., India Ped.
Styka, Phillip E. M.D., Rush U. Anesthes.	Szatkowski, Mary M.D., Loyola U. of Chicago Ophthalmology	Tellis-Nayak, V. Ph.D., Michigan State U. Psych. & Soc. Sci.
Stypuloski, Ellen M.S., Northern Illinois U. Comm. Hlth. Nsg.	Szczesny, Sue M.S., Rush U. Psychi. Nsg.	Temming, M. Carole M.S., Th.M., Aquinas Inst. of Theo. Relig. & Hlth.
Subramani, Govindaraju M.B.B.S., India Int. Med.(MTSN)	Szpindor, Anne M.D., Poland Im./Micro.	Templeton, Alexander C. M.B.B.S., U.K. Pathology
Suchy, Vladimir M.D., Marquette U. Fam. Prac.(COMM)	Szymanski, Frederick J. M.D. Dermatology	Templin, Ruth B. M.P.H., Michigan State U. Comm. Hlth. Nsg.
Sudakoff, Gary S. M.D., Rush U. Gen. Surg.	Talbert, Kenneth E. M.D. Ophthalmology	Tennant, Maurice M. M.D., U. of I. at Chicago Anesthes.(CH)
Sugar, Oscar M.D., George Washington U., Ph.D., U. of Chicago Neuro. Surg.	Tangney, Christine Ph.D., Va. Poly. Inst. & St. U. Rel. Hlth. Prg.	Tennant, Steven R. D.D.S., U. of Detroit Gen. Surg.(CH)
Sugimoto, Danny H. M.D., Rush U. Int. Med.	Tanner, Caroline M.D., Loyola U. of Chicago Neuro. Sci.	Tenta, Louis T. M.D., In. U.-Purdue U. at Indpl. Oto. & Bronc.
Suh, Sang M.D., Korea Ortho. Surg.	Tarnow, Jane M.S.N., St. Louis U. Surg. Nsg.	Thampy, Kishore J. M.B.B.S., Spain Psychi.
Sulayman, Rabi F. M.D., Lebanon Ped.(CH)	Tarun, Donald M.D., U. of I. at Chicago Int. Med.	Thielbar, Sharon M.S., Rush U. Med. Nsg.
Suliaman, Fawzi M.B.,B.Ch., Iraq Ped.(CH)	Tarzynski-Potempa, R. M.D., Rush U. Int. Med.	Thomas, Jr., William M.D., Boston U. Pathology(MTSN)
Sullivan, Jr., John E. M.D., U. of South Florida Ob. & Gyne.	Tarzynski, Marian S. M.D., Italy Int. Med.	Thomas, Anthony V. M.D. Pathology
Sullivan, Daniel P. M.D., Rush U. Int. Med.	Tattersall, Charles W. M.D., Med. Col. Ohio at Toledo Gen. Surg.	Thomas, Charlene M.S.N., U. of I. at Chicago Surg. Nsg.
Sullivan, James D. M.D., Loyola U. of Chicago Urology(WSUB)	Tatum, Vaughn M.D. Int. Med.(MTSN)	Thomas, Charles W. M.D., Dartmouth Col. Gen. Surg.

Faculty Alphabetical List

Thomas, Jean M.A., Boston Col. Pediatric Nsg.	Topel, Jordan L. M.D., Loyola U. of Chicago Neuro. Sci.	Tuman, Kenneth J. M.D., U. of I. at Chicago Anesthes.
Thomas, John A. Ph.D., U. of Iowa Pharmacology	Tordecilla, Lydia M.S., DePaul U. Geront. Nsg.	Tunestam, Nils J. M.D., Sweden Ped.(SWED)
Thomas, Larry Ph.D., U. of I. at Chicago Im./Micro.	Torres, Albert M.D. Anesthes.	Turek, Louis H. M.D., Chicago Med. Sch. Fam. Prac.(MTSN)
Thomas, Russel W. Pharm.D, Med. U. of S.C. Pharmacology	Torres, Heriberto M.D. Ped.	Turkewitz, L. Jay M.D., Boston U. Neuro. Sci.(MTSN)
Thomason, Jr., Richard D. M.D., U. of Chicago Anesthes.	Torres, Hernando M.D., Colombia Neuro. Surg.(MTSN)	Turner, David A. M.D., U. of Chicago Di. Rad. & Nuc. Med.
Thompson, Dennis S. D.O., Chgo. Col. Osteo. Med. Psychi.(CH)	Trager, Eugene P. M.D., U. of I. at Chicago Psychi.	Turner, Irene R. Prev. Med.
Thompson, Lee D. Ph.D., In. U.-Bloomington Hlth. Syst. Mgt.	Trakas, Demetrius A. M.D., Greece Psychi.	Turner, Thomas M. D.V.M., Auburn U. Ortho. Surg.
Thompson, Pamela M.S.N., U. of Rochester Pediatrics Nsg.	Trautenberg, Joel M.D., Mexico Ped.	Twiss, Alston C. M.D., Temple U. Int. Med.
Thompson, Ray E. M.D., U. of I. at Chicago Int. Med.(GBUR)	Trenholme, Gordon M. M.D., Marquette U. Int. Med., Pharmacology	Tyszka, Margaret M.S., Rush U. Surg. Nsg.
Thompson, Walter C. M.D., Loma Linda U. Fam. Prac.(BETH)	Tresley, Jack M.D., U. of I. at Chicago Ophthalmology(MTSN)	Tyszka, Thomas S. M.D., U. of I. at Chicago Int. Med.
Thomson, Andrew M.D., In. U.-Purdue U. at Indpl. Int. Med.	Tripp, Lee A. M.D. Ob. & Gyne.	Ulsamer-VanLanen, Jane M.S., U. of Co.-H.S. Ctr. Psychi. Nsg.
Thomson, Cameron M.D., U. of I. at Chicago Int. Med.	Trobaugh, Jr., Frank E. M.D., Harvard U. Int. Med., Pathology	Unfer, Susan M.D., Rush U. Ped.
Thonar, Eugene Ph.D., South Africa Biochem.	Trubitt, Mitchell J. M.D., U. of I. at Chicago Int. Med.(MTSN)	Upadhyay, Nandini M.B.B.S., India Ped.
Threatte, James A. M.D., Chicago Med. Sch. Ob. & Gyne.	Truchly, Vasil M.D., Germany Ob. & Gyne.	Upadhyaya, Varsha V. M.B.B.S., India Ob. & Gyne.(MTSN)
Tiesenga, Marvin M.D., U. of I. at Chicago Gen. Surg.(WSUB)	Trufant, John E. Ed.D., U. of Florida Hlth. Syst. Mgt.	Upadhyaya, Vinod P. M.B.B.S., India Ped.(CH)
Tilkin, Jeffrey M. M.D., U. of I. at Chicago Psychi.	Trufant, Judy M.N., U. of Florida Pediatric Nsg.	Urbanski, Pam M.S.N., Texas Womans U. Surg. Nsg.
Timmerman, Gary L. M.D., Washington U. Gen. Surg.	Trujillo-Gomez, Jamie M.D., Colombia Psychi.	Uretz, Eugene F. M.S., U. of Chicago Int. Med.
Timmons, John A. M.D., Rush U. Int. Med.	Trybulka, Marion A. M.D., Johns Hopkins U. Int. Med.	Valcarenghi, Maurice M.A., Mexico Ob. & Gyne.
Tio, Diego U. M.D., Philippine Is. Anesthes.(MTSN)	Tsai, Eugene M.D., Northwestern U. Cv.T. Surg.(CH)	Valenta, James C. M.D., Northwestern U. Urology
Tiruvury, Anuradha M.B.B.S., India Ped.(MTSN)	Tsai, Houn M.D., China-Taiwan Anesthes.(CH)	Van Byssum, Doris M.S., Rush U. Psychi. Nsg.
Tkach, John I. M.D., U.S.S.R. Fam. Prac.(CH)	Tsou, Richard M.D., U. of Michigan Urology	Van Hoorebeke, Kala M.A., M.S. U. of Tn., Knoxville Rel. Hlth. Prg.
Toman, Maralyn E. M.D., U. of I. at Chicago Int. Med.	Tsung, Jeffrey M.D., China-Taiwan Pathology	Van Reken, Everett M.D., U. of Chicago Fam. Prac.(WSUB)
Tomas, Joaquin M.D., Spain Gen. Surg.	Tucker, W. Randolph M.D., U. of Cincinnati Int. Med.	Van Valin II, William M.D., Mexico Ped.

Varadhi, Arundhathy M.D. Ped.	Vucicevic, Slobodan M.D., Yugoslavia Ortho. Surg.(MTSN)	Wanczyk, Teresa D.O. Ped.
Vasan, Ushanalini M.B.B.S., India Ped.	Vukalcic, Lisa J. M.D., U. Ca.-Sn. Francisco Anesthes.	Wang, Benjamin J. M.D., Rush U. Ph.D., U. of Pennsylvania Int. Med.
Vazquez, Juan J. M.D., Spain Psychi.	Vulgaris, William M.D., Greece Fam. Prac.(GRNT)	Wang, Chang-Yang M.D., China-Taiwan Ph.D., Northwestern U. Oto. & Bronc.(CH)
Velada, Pedro I. M.D., Philippine Is. Ped.(CH)	Wachtor, Thomas E. M.S., U. of I. at Chicago Th. Rad., Rel. Hlth. Prg.	Wang, Kuo-Fuh M.D., China-Taiwan Ped.
Vellody, Kunhunni M.B.B.S., India Ped.(CH)	Wade, Margaret E. M.D., Loyola U. of Chicago Fam. Prac.	Warden, Gail L. M.H.A., U of Michigan Hlth. Syst. Mgt.
Venkataraman, Munusamy D.V.M., Ph.D., India Im./Micro., Int. Med.(MTSN)	Wadgaonkar, Sudhanva M.D., India Int. Med.(MTSN)	Warner, Jennifer M.D., U. of Chicago Di. Rad. & Nuc. Med.
Vento, Elio G. M.D., Italy Ob. & Gyne.(WSUB)	Wagner, Robert H. M.D., U. of I. at Chicago Fam. Prac.(GBUR)	Warren, Dawn Marie M.D., Rush U. Ob. & Gyne.
Vercoe, James L. M.D., U. of Michigan Ped.(CH)	Wagner, Robert H. M.D., Rush U. Gen. Surg.	Warren, Karen L. M.D. Int. Med.
Veres-Thorner, C. M.D. Int. Med.(MTSN)	Wagner, William A. B.D., Nashotah House Relig. & Hlth.	Warren, William H. M.D., U. of Toronto, Canada Cv.T. Surg., Pathology
Vern, Boris A. Ph.D., M.D., Northwestern U. Neuro. Sci.(MTSN)	Wai, William Y. M.D., China-Taiwan Ped.	Waskerwitz, Steven M.D., Wayne State U. Ped.
Vicari, Ralph M.D., Loyola U. of Chicago Int. Med.	Wakefield, Howard M.D., Rush Med. Col. Int. Med.	Waskin, Hetty A. M.D., U. of Michigan Int. Med.
Vidaver-Cohen, Doris M.A., U. of Michigan Neuro. Sci.	Walasek, Joan A. B.A., Nat'l. Col. of Educ. Rel. Hlth. Prg.	Wasyliw, Orest Ph.D., U. of I. at Chicago Psychi., Psych. & Soc. Sci.
Vidinli, Mustafa M.D., Turkey Int. Med.(COPL)	Walco, Gary A. M.A., Ohio St. U. Psych. & Soc. Sci.	Watkins, Roy C. M.D., Howard U. Fam. Prac.(BETH)
Viernes, Ann L. M.S., DePaul U. Rel. Hlth. Prg.	Walczak, Cheryl A. M.D., Loyola U. of Chicago Di. Rad. & Nuc. Med.	Watson, Jr., Arthur C. M.D., Duke U. Ob. & Gyne.(GBUR)
Vivar, Zenaida M.D., Philippine Is. Psychi.(CH)	Waldman, Maurice M.D., France Psychi.	Watson, Laura H. M.A., U. Of I. at Urbana Psych. & Soc. Sci., Psychi.
Vlasis, George P. M.D. Ob. & Gyne.(CH)	Walens, Debbie B.S., U. of I. at Chicago Rel. Hlth. Prg.	Watts, Jr., Risher M.D., Howard U. Fam. Prac.(BETH)
Voltolina, Eugene J. M.D., Loyola U. of Chicago Psychi.(CH)	Wall, James M. M.D., Chicago Med. Sch. Fam. Prac. (CH)	Weddle, Dian M.S., Columbia U. Rel. Hlth. Prg.
Voluz, Joan M.S., CUNY Hunter Col. Surg. Nsg.	Wallin, Paul E. M.D. Ped. (COMM)	Weeks, Peter J. M.D., Rush U. Ob. & Gyne.
Von Behrens, Wieland Ph.D., Australia Int. Med.	Wallner, Linden J. M.D., Loyola U. of Chicago Oto. & Bronc.	Weens, Joan M.D., Harvard U. Int. Med.
Von Roenn, Jamie E. M.D., Rush U. Int. Med.	Walsh, Kenneth A. M.D., U. of I. at Chicago Int. Med.	Weinberg, Jr., Milton M.D., Duke U. Cv.T. Surg.
Von Roenn, Kelvin A. M.D., U. of Kentucky Neuro. Surg.	Walsh, Marian M.S., Rush U. Surg. Nsg.	Weiner, Barbara J.D., DePaul U. Psychi.
Von Rueden, Kurt M.D. Ortho. Surg.	Walsh, Michelle Ph.D., U. of I. at Chicago Pediatric Nsg.	Weinrib, Harry P. M.D., Ph.D., U.S.S.R. Pls. & Rec. Surg.
Vossoughi, Farhad M.D., Switzerland Gen. Surg.(MTSN)	Walsh, Patricia A. M.D., Loyola U. of Chicago Int. Med.	Weinstein, James D.O., Chgo. Col. Osteo. Med. Ortho. Surg.

Faculty Alphabetical List

Weinstein, Karen B. M.D., Rush U. Int. Med.	Weyrens, Francis P. M.D., St. Louis U. Ob. & Gyne.(GBUR)	Wing, Herman M.D., U. of Tx. H.S. Ctr. at Sn. An. L.L.B., U. of Texas at Austin Int. Med.
Weinstein, Robert J. M.D., Chicago Med. Sch. Urology(MTSN)	Whisler, Kenneth E. Ph.D., U. of Wi.-Madison Biochem., Rel. Hlth. Prg.	Winter, Paul L. M.D., Northwestern U. Int. Med.
Weinstein, Ronald S. M.D., Tufts U. Pathology	Whisler, Walter M.D., Ph.D., U. of I. at Chicago Neuro. Surg., Neuro. Sci., Biochem.	Winterfield, Jr., Roland M.D., Northwestern U. Int. Med.(CH)
Weinstock, Albert Ph.D., I.I.T. Biochem., Pathology(MTSN)	Whitaker, Ronald H. M.S., Ohio St. U. Hlth. Syst. Mgt.	Wirtshafter, Robert M.D., U. of Chicago Ped.(CH)
Weisbart, Edmond M.D., U. of I. at Chicago Fam. Prac.	White, Donald R. M.D., Baylor Col. of Med. Ped.(CDH)	Witkowski, Leon J. M.D., Northwestern U. Gen. Surg.
Weisberger, Lise M.D., U. of Pennsylvania Fam. Prac.	Whitmore, Elizabeth M.S., Rush U. Surg. Nsg.	Witkowski, Robert M.D., Rush U. Gen. Surg.
Weiser, Stephen J. J.D., Washington U. Hlth. Syst. Mgt.	Wichter, Melvin M.D., New York Med. Col. Neuro. Sci.(CH)	Witt, Thomas R. M.D., Northwestern U. Gen. Surg.
Weisman, Nancy E. J.D., Chgo.-Kent Col. of Law Hlth. Syst. Mgt.	Wickham, Rita M.S., Northern Illinois U. Med. Nsg.	Wittman, Randy S. M.D., Loyola U. of Chicago Ob. & Gyne.
Weiss, Gerald E. M.D., Switzerland Ped.(CH)	Wigder, Herbert N. M.D., U. of Wi.-Madison Fam. Prac.(CH)	Wojcik, Edward M.D., Loyola U. of Chicago Ortho. Surg.(COMM)
Weiss, Mark S. M.D., New York Med. Col. Ped.	Wilbanks, George D. M.D., Duke U. Ob. & Gyne.	Wolf, James N. Sc.D., Johns Hopkins U. Hlth. Syst. Mgt.
Weissberger, Lynne E. Ph.D., Cornell U. Rel. Hlth. Prg.	Wiley, Darrell B. M.D., U. Of I. at Urbana Gen. Surg.	Wolf, Marion E. M.D., Chile Psychi.
Weller, Herschel M.D., U. of I. at Chicago Int. Med.(MTSN)	Wiley, Elizabeth M.D., Johns Hopkins U. Pathology	Wolf, Mark R. D.D.S., U. of I. at Chicago Gen. Surg.
Wellman, William L. M.S., U. of Mich.-Dearborn Hlth. Syst. Mgt.	Wilhelm, Emanuel C. M.D., Loyola U. of Chicago Ob. & Gyne.(CH)	Wolfe, Charles K. M.D., U. of Pennsylvania Int. Med.
Wells, Gregory E. M.D., Meharry Med. Col. Anesthes.	Wilkinson, Connie M.P.H., Tulane U. of Louisiana Geront. Nsg.	Wolff, John R. M.D., Northwestern U. Ob. & Gyne., Psychi.
Welsh, Brady M.D., Northwestern U. Fam. Prac.	Willander, Duane A. M.D., Northwestern U. Ortho. Surg.(GBUR)	Wolgemuth, Christine L. M.S., Northern Illinois U. Rel. Hlth. Prg.
Welsh, Thomas J. D.V.M., Ok. St. U. Ph.D., U. of I. at Chicago Im./Micro.	Williams, Denise E. B.S., U. of I. at Chicago Rel. Hlth. Prg.	Wolin, Preston M. M.D., U. of I. at Chicago Ortho. Surg. (CH)
Wenzel, David R. M.D., Jefferson Med. Col. of Phila. Anesthes.	Williams, Jack M.D. Int. Med.(GRNT)	Wolter, Janet M.D., U. of I. at Chicago Int. Med.
West, James W. M.D., U. of Chicago Int. Med.	Williams, James M. Ph.D., In. U.-Purdue U. at Indpl. Anat.	Wong, Alfonso M.D., Philippine Is. Anesthes.(CH)
West, James W. M.D., Loyola U. of Chicago Psychi.	Williamson, Patricia M.S., Rush U. Surg. Nsg.	Wong, Cynthia M.D., U. of Chicago Int. Med.
Westerman, Maxwell P. M.D., U. Louisville Int. Med.(MTSN)	Williamson, Wayne M.D., U. of Cincinnati Int. Med.	Wong, Paul W. M.D., Hong Kong Ped., Int. Med.
Westheimer, Ruth M.D., Rush U. Psychi.	Wilson, James R. M.D. Int. Med.	Wood, Joseph P. M.D., U. of I. at Chicago Fam. Prac.(CH)
Wettstein, Robert M.D., U. of Ca.-L.A. Psychi.	Wilson, Robert S. Ph.D., Wayne State U. Psych. & Soc. Sci.	Wool, Norman L. M.D., Chicago Med. Sch. Gen. Surg.
Wetzel, Ann M.D. Ob. & Gyne.	Wilson, Robert W. M.D., U. of Mo.-Columbia Fam. Prac.(COMM)	Wright, Donovan G. M.D., U. of Mn. of Mnpl. St. Paul Psychi.

Wright, Robert B. M.D., U. of I. at Chicago Neuro. Sci.	Yu, Evelyn M.D., Philippine Is. Ped.	Zelisko, John A. M.D., Northwestern U. Anesthes.
Wyhinny, George M.D., U. of I. at Chicago Ophthalmology	Yuk, Antonio C. M.D., U. of Pennsylvania Neuro. Surg.	Zeller, Janice Ph.D., U. of I. at Chicago Med. Nsg., Im./Micro.
Wynn, Ralph M. M.D., New York Med. Col. Ob. & Gyne.(MTSN)	Zacharias, Charles M.D., Rush U. Di. Rad. & Nuc. Med.	Zemel, Edward Ph.D., U. of Pennsylvania Im./Micro.
Yadava, Ved P. M.D., India Int. Med.(GRNT)	Zadylak, Robert G. M.D., Loyola U. of Chicago Psychi.	Zervopoulos, Evangelia M.D., Greece Ped.(SWED)
Yasoff, W. Alan M.D., Northwestern U. Int. Med.	Zahtz, Merrill M.D. Int. Med.(MTSN)	Zheutlin, Lynne M.D., Johns Hopkins U. Im./Micro.
Yballe, Sonia B. M.D., Philippine Is. Psychi.(MTSN)	Zajecka, John M. M.D., Loyola U. of Chicago Psychi.	Ziarko, Jr., Mitchell M.D., U. of I. at Chicago Int. Med.
Yellen, Harry J. M.D., Loyola U. of Chicago Int. Med.(MTSN)	Zakko, Hazim Y. M.B.B.Ch., Iraq Psychi.	Ziebel, Dana M.D. Ob. & Gyne.
Yellen, Steven F. M.D., Chicago Med. Sch. Int. Med.(MTSN)	Zallik, Ned I. M.D., Chicago Med. Sch. Int. Med.	Zimmerman, Robert D. M.D., Chicago Med. Sch. Urology
Yordan, Edgardo M.D., U. of Md. Baltimore Co. Ob. & Gyne.	Zaneveld, Lourens D.V.M., Ph.D., U. of Ga. Ob. & Gyne., Biochem.	Zimmerman, Roger P. Ph.D., Yale U. Neuro. Sci., Physiol.
Yoshizawa, Ellen H. B.S., Rush U. Rel. Hlth. Prg.	Zapata, Patricia M.D., Ped.	Zitek, Russell M.D., U. of I. at Chicago Fam. Prac.(COMM)
Yosko, Kathleen M.N., U. of Pittsburgh Geront. Nsg.	Zarrabi, Jalil M.D., Iran Ped.	Zitnik, Ralph S. M.D., Loyola U. of Chicago Int. Med.
Young, Carolyn M.A., Northwestern U. Rel. Hlth. Prg.	Zaverdas, George M.D. Int. Med.	Zitter, Robert E. Ph.D., West Virginia U. Fam. Prac., Psych. & Soc. Sci.(CH)
Young, Deatra M.D., U. of I. at Chicago Fam. Prac.(CH)	Zeisler, Karl J.D., Harvard U. M.B.A., Northwestern U. Hlth. Syst. Mgt.	Zlomke, Michael M.D. Gen. Surg.
Young, J. Norman M.D., Northwestern U. Gen. Surg.(COMM)	Zeitz, Howard J. M.D., U. of I. at Chicago Im./Micro., Int. Med.(GRNT)	Zoeller, Thomas M.D., Rush U. Gen. Surg.
Young, Michael Ph.D., Adelphi U. Psych. & Soc. Sci., Psychi.	Zeldow, Peter Ph.D., Pa. St. U. Psych. & Soc. Sci.	Zoldan, Jack M.D., U. of I. at Chicago Int. Med.
Younger, Susan C. M.D., Univ. of Ms. Med. Col. Psychi.	Zelinger, Allan B. M.D., Rush U. Int. Med.(CH)	Zuckerman, Victor D.O. Ped.
Youngjohn, James M.A., U. Louisville Psych. & Soc. Sci.	Zelinger, Bernard B. M.D., Germany Ob. & Gyne.(CH)	Zusman, Martin Ph.D., In. U.-Bloomington Psych. & Soc. Sci.
Yrapsis, Nicholas M.D., Greece Ob. & Gyne.(CH)		

ENDOWED CHAIRS

Endowed Chairs at Rush-Presbyterian-St. Luke's Medical Center

Endowment provides the margin for excellence at Rush University as generous and farsighted giving helps build leadership among the faculties. Commitments for endowed chairs provide the donor with the satisfaction of enabling Rush faculty to advance education and research in the conquest of disease, and make it possible for Rush University to continue to attract scientists and educators of the highest quality. There are now 30 endowed chairs at the Medical Center, more than half of them fully funded.

Chairs currently occupied are:

Jean Schweppé Armour Chair of Neurology

This, the first endowed chair at a private hospital in this country, was established in 1963 as memorial to Jean Schweppé Armour by A. Watson Armour III, other members of the Armour family, and by her friends as a tribute to her leadership as a volunteer for the Medical Center and as a member of its Woman's Board.

Holder: Maynard M. Cohen, M.D., Ph.D.
The Jean Schweppé Armour Professor of Neurology

John W. and Helen H. Watzek Chair of Biochemistry

Established in 1965 by John W. Watzek, Jr., an industrialist, to honor the memory of his parents. The decision grew out of a relationship with the Medical Center and with his physician, the late Richard B. Capps, M.D.

Holder: Klaus E. Kuettner, Ph.D.
The John W. and Helen H. Watzek Professor of Biochemistry
Professor of Orthopedic Surgery
Chairman of the Department of Biochemistry

Woman's Board Chair of Pediatrics

Established in 1968 by the Woman's Board of Rush-Presbyterian-St. Luke's Medical Center as the first endowed chair of pediatrics at any hospital in the nation and the first major endowment by the Woman's Board.

Holder: Joseph R. Christian, M.D.
The Woman's Board Professor of Pediatrics
Chairman of the Department of Pediatrics.

Elodia Kehm Chair of Hematology

Established in 1969 by a bequest honoring Elodia Kehm, widow of the owner of Kehm Construction, who died of cancer in 1932.

Holder: Frank E. Trobaugh, Jr., M.D.
The Elodia Kehm Professor of Laboratory Hematology
Director of the Section of Laboratory Hematology

John M. Simpson Chair of Obstetrics and Gynecology

Established in 1970 when John M. Simpson, Trustee of Rush-Presbyterian-St. Luke's Medical Center, permitted his name to be identified with this endowment.

Holder: George D. Wilbanks, Jr., M.D.
The John M. Simpson Professor of Obstetrics and Gynecology
Chairman of the Department of Obstetrics and Gynecology

Bishop Anderson Chair of Religion and Medicine

Established in 1970 through the philanthropy of Mrs. Laurance Armour, Sr., and the leadership of Bishop Charles P. Anderson, Bishop of the Episcopal Diocese of Chicago from 1900-1930, as an important recognition of the heritage and commitment of Rush-Presbyterian-St. Luke's Medical Center.

Holder: The Reverend Christian A. Hovde, Ph.D., D.D.
The Bishop Anderson Professor of Religion and Medicine
Chairman of the Department of Religion and Health

Thomas J. Coogan, Sr., M.D., Chair of Immunology

Established in 1971 in tribute to the late Thomas J. Coogan, M.D., and in memory of Benjamin F. Lindheimer by his daughter, Marjorie Lindheimer Everett, who recognized Dr. Coogan's outstanding service to the medical profession and encouraged the great progress in the discipline of immunology at Rush.

Holder: Henry Gewurz, M.D.
The Thomas J. Coogan, Sr., M.D., Professor of Immunology
Chairman of the Department of Immunology/Microbiology
Professor of Internal Medicine
Professor of Pediatrics

**Stanley G. Harris, Sr.,
Chair of Psychiatry**

Established in 1972 as a lasting memorial to the late Stanley G. Harris, Sr., who provided Rush-Presbyterian-St. Luke's with leadership and philanthropy for many years.

Holder: Jan A. Fawcett, M.D.
The Stanley G. Harris, Sr., Professor of Psychiatry
Chairman of the Department of Psychiatry

**Harriet Blair Borland
Chair of Pathology**

Established in 1972 by Chauncey B. Borland, a Trustee of Rush-Presbyterian-St. Luke's Medical Center for many years, in memory of his mother who shared his interest in clinical pathology and supported the same interests during her lifetime.

Holder: Ronald S. Weinstein, M.D.
The Harriet Blair Borland Professor of Pathology
Chairman of the Department of Pathology

**Stanton A. Friedberg, M.D.,
Chair of Otolaryngology and
Bronchoesophagology**

Established in 1973 by the family and friends of Stanton A. Friedberg, M.D., a preeminent physician and teacher of Rush Medical College and president of the medical staff from 1964 to 1966.

Holder: David D. Caldarelli, M.D.
The Stanton A. Friedberg, M.D., Professor of Otolaryngology and Bronchoesophagology
Chairman of the Department of Otolaryngology and Bronchoesophagology

**Otho S. A. Sprague
Chair of Pathology**

Established in 1975 to recognize the Otho S. A. Sprague Memorial Institute which was created through the will of Otho S. A. Sprague, civic leader in Chicago at the turn of the century, and which since 1938 has supported research at Rush, especially in the Departments of Biochem., Immunology/Microbiology and Pathology.

Holder: George M. Hass, M.D.
The Otho S. A. Sprague Professor of Pathology, Emeritus

**Francis N. and Catherine O. Bard
Chair of Physiology**

Established in 1975 by bequest of Francis N. Bard, who took an active interest in the Medical Center, an interest which his family continues.

Holder: Robert S. Eisenberg, Ph.D.
The Francis N. and Catherine O. Bard Professor of Physiology
Chairman of the Department of Physiology

**Robert C. Borwell
Chair of Neurology**

Established in 1978 by Robert C. Borwell, Trustee of Rush-Presbyterian-St. Luke's Medical Center, to set an example for others to follow for the endowment needs of the new Rush University and to support the research and treatment of multiple sclerosis and related diseases.

Holder: Floyd A. Davis, M.D.
The Robert C. Borwell Professor of Neurology
Acting director of the Multiple Sclerosis Center

**Samuel G. Taylor III, M.D.,
Chair of Oncology**

Established in 1978 to honor Samuel G. Taylor III, M.D., professor of internal medicine, Emer., whose career began with a Rush degree 50 years ago, by his friends, patients, and colleagues. Dr. Taylor remains actively involved in the Section of Medical Oncology which he founded.

Holder: Jules E. Harris, M.D.
The Samuel G. Taylor III, M.D., Professor of Oncology Director of the Section of Medical Oncology

**John L. and Helen Kellogg
Dean of the College of Nursing**

Established in 1978 by the John L. and Helen Kellogg Foundation in the College of Nursing as part of a munificent \$4.5 million gift which also named the Kellogg Pavilion and created the John L. and Helen Kellogg National Center for Excellence in Nursing at the Medical Center as a memorial to Mr. and Mrs. Kellogg.

Holder: Luther P. Christman, Ph.D., R.N.
The John L. and Helen Kellogg
Dean of the College of Nursing
Vice President for Nursing Affairs

Helen Shedd Keith
Chair of General Surgery

Established in 1980 in tribute to Helen Shedd Keith, first a member of St. Luke's Hospital Woman's Board and later of the combined boards of both Presbyterian and St. Luke's Hospitals, a founder of the Anchor Cross Society, and generous donor to Rush-Presbyterian-St. Luke's Medical Center. The chair was endowed by her daughter and son-in-law, Mary and John Bent. Bent is a Life Trustee of the Medical Center.

Holder: Steven G. Economou, M.D.
 The Helen Shedd Keith Professor
 of General Surgery
 Chairman of the Department of
 General Surgery

Clark Wylie Finnerud, M.D.,
Chair of Dermatology

Established in 1981 by Mrs. Clark W. Finnerud in honor of her late husband, distinguished alumnus and professor of Rush Medical College and towering figure in the field of American dermatology.

Holder: Frederick D. Malkinson, M.D.,
 D.M.D.
 The Clark Wylie Finnerud, M.D.,
 Professor of Dermatology
 Chairman of the Department of
 Dermatology

In addition, the following chairs are either partially or fully endowed but are currently unoccupied:

Richard B. Capps, M.D.,
Chair of Hepatology

Established in 1968 by friends and patients in recognition of the contributions of Richard B. Capps, M.D., to medicine, particularly his pioneering research and study of hepatitis.

Josephine Dyrenforth
Chair of Gastroenterology

Established in 1968 by a bequest of Mrs. Josephine Dyrenforth in appreciation of the care given her husband, Arthur, a well known Chicago attorney.

Willard L. Wood, M.D.,
Chair of Rheumatology

Established in 1969 through a bequest of the late Charles S. Pillsbury, his family, and other grateful patients of Willard L. Wood, M.D., who was graduated from Rush Medical College and was a physician and a Rush University faculty member for more than 55 years.

Chair of Cardiovascular-Thoracic Surgery

Established under the leadership of John Bent, Trustee, in 1970.

Harry Boysen, M.D.,
Chair of Obstetrics and Gynecology

Established in 1970 by gifts from the Woman's Board, the Trustees, and grateful patients of Harry Boysen, M.D.

Ralph C. Brown, M.D.,
Chair of Internal Medicine

Established in 1970 by the family and friends of Ralph C. Brown, M.D., graduate of Rush Medical College who served as professor of medicine and who was a medical staff member of Presbyterian-St. Luke's Hospital until his death in 1954.

James Lowenstein
Chair of Internal Medicine

Created in 1971 by the Lowenstein Foundation to honor the president of the Central Steel and Wire Company and to inspire and promote the Rush philosophy of patient-centered care and, in particular, the clinical training of the family doctor.

J. Bailey Carter, M.D.,
Chair of Cardiology

Established in 1972 by his widow, Ruth, this chair honors J. Bailey Carter, M.D., a well-known professor of cardiology on the Rush Medical College faculty from 1928 to 1938.

Chair of Anesthesiology

Established in 1973 primarily by gifts from members of the Department of Anesthesiology.

Jack Fraser Smith
Chair of Surgery

Established in 1974 by Bertha Spaeti Smith to recognize and honor, in memory of her husband, outstanding physicians and surgeons in the Department of General Surgery.

Chair of Orthopedic Surgery

Established in 1977 by personal gifts of the members of the medical staff, Department of Orthopedic Surgery.

James A. Campbell, M.D.,
Distinguished Service Chair

Established in 1981 by a group of former chairmen of the Trustees and special friends of the Medical Center to permanently recognize the vision, imagination, and personal dedication of its president.

Muehrcke-Kark Chair of Nephrology

To honor Robert M. Kark, M.D., who as professor of internal medicine at Rush Medical College is world renowned for his pioneer work in renal biopsies. Dr. Kark has trained countless physicians and investigators, among them Robert C. Muehrcke, M.D., professor, internal medicine, Rush Medical College, and director of the Kidney Center and director of medical education at West Suburban Hospital Medical Center, Oak Park, Illinois. Dr. Muehrcke initiated the establishment of this chair.

Also representing a major endowment is:

The William Noble Lane Medical Research Organization

This, the first Medical Research Organization in the Midwest and the second in the nation, honors the memory of William Noble Lane, Disting. civic leader and entrepreneur. It was established in 1980 by the William Noble Lane Foundation to engage in medical research in conjunction with a hospital.

Principal Investigator: Eugene J.M.A.

Thonar, Ph.D.

Asst. Professor of
Biochemistry

ORGANIZATION

Governance	216
Management	217
Rush University Affiliations	218
Committees	219

Governance

Principal Officers

Harold Byron Smith, Jr.
Chairman
Roger E. Anderson
Richard M. Morrow
Richard L. Thomas
Vice Chairmen
Leo M. Henikoff, M.D.
President

General Trustees

Mrs. Frederick M. Allen
Roger E. Anderson
Angelo R. Arena
Mrs. Bowen Blair
Edward McCormick Blair
B.A. Bridgewater, Jr.
John H. Bryan, Jr.
Richard G. Cline
David W. Dangler
Donald B. Davidson
Mrs. Herbert C. DeYoung
Albert B. Dick III
Thomas A. Donahoe
Thomas E. Donnelley II
H. James Douglass
James L. Dutt
Bernard J. Echlin
Wade Fetzer III
Marshall Field
Cyrus F. Freidheim, Jr.
Robert Hixon Glore
Joan M. Hall
Augustin S. Hart, Jr.
Marilou McCarthy Hedlund
Leo M. Henikoff, M.D.
Frederick G. Jaicks
Edgar D. Jannotta
Silas Keehn
Thomas A. Kelly
Clayton Kirkpatrick
Thomas J. Klutznick
Frederick A. Krehbiel
William N. Lane III
Homer J. Livingston, Jr.
Charles S. Locke
Vernon R. Loucks, Jr.
Donald G. Lubin
John W. Madigan
Mrs. F. Richard Meyer III
Richard M. Morrow
George V. Myers
Joseph J. Muenster, M.D.
William A. Pogue
Joseph Regenstein, Jr.
Robert P. Reuss
Thomas A. Reynolds, Jr.

Thomas H. Roberts, Jr.

Patrick G. Ryan

Robert W. Schaefer

Charles H. Shaw

Michael Simpson

Harold Byron Smith, Jr.

Robert A. Southern

E. Norman Staub

Philip W.K. Sweet, Jr.

Bide L. Thomas

Richard L. Thomas

W.L. Weiss

B. Kenneth West

James R. Wolfe

William T. Ylvisaker

Annual Trustees

Ralph A. Bard, Jr.
R. Gordon Brown, M.D.
The Rev. Edward F. Campbell, Jr.
James W. DeYoung
The Rev. David A. Donovan
Robert J. Hasterlik, M.D.
Mrs. Edward Hines
Mrs. Edgar D. Jannotta
Robert J. Jensik, M.D.
The Rt. Rev. James W. Montgomery
Ronald D. Nelson, M.D.
R. Joseph Olk, M.D.
Harold L. Sherman
Andrew Thomson, M.D.

Life Trustees

A. Watson Armour III
Ralph A. Bard, Jr.
Edward C. Becker
John P. Bent
Edward F. Blettner
William F. Borland
Robert C. Borwell, Sr.
Lloyd W. Bowers
Mrs. George S. Chappell, Jr.
William M. Collins, Jr.
Robert C. Gunness
Stanley G. Harris, Jr.
Mrs. William G. Karnes
John H. Krehbiel, Sr.
Brooks McCormick
Anthony F. Michel
Kenneth F. Montgomery
The Rt. Rev. Quintin E. Primo, Jr.
Richard W. Simmons
Solomon Byron Smith
Justin A. Stanley
T. M. Thompson
Mrs. Calvin D. Trowbridge
Waltman Walters, M.D.
Edward Foss Wilson
Arthur M. Wood
George B. Young

Management

Medical Center

Leo M. Henikoff, M.D.

President

Donald R. Oder

Senior Vice President and Treasurer

Henry P. Russe, M.D.

Vice President, Medical Affairs and Dean,
Rush Medical College

Luther P. Christman, Ph.D., R.N.

Vice President, Nursing Affairs and Dean,
College of Nursing

Wayne M. Lerner,

Vice President, Administrative Affairs

John E. Trufant, Ed.D.

Vice President, Academic Resources

Dean, The Graduate College and
Acting Dean, College of Health Sciences

Nathan Kramer

Vice President, Prepaid Health Programs, and
President, ANCHOR Corporation

Sheldon Garber

Vice President, Philanthropy & Communi-
cation and Secretary

Medical Staff Officers

Andrew Thomson, M.D.

President

Malachi J. Flanagan, M.D.

President-Elect

Charles M. D'Angelo, M.D.

Secretary

Guy R. Matthew, M.D.

Treasurer

Rush University

Leo M. Henikoff, M.D.

President

Donald R. Oder

Senior Vice President and Treasurer

John E. Trufant, Ed.D.

Vice President, Academic Resources

John S. Graettinger, M.D.

University Marshal

W. Randolph Tucker, M.D.

Director, Research Administration

William C. Wagner, Ph.D.

Associate Dean, Student Services

Joe B. Swihart, M.S.Ed.

Registrar

Marnie Paul, M.A.

Director, University Studies

Phyllis J. Peterson, M.Ed.

Director, College Admissions Services, and

Director, Affiliated College Programs

Marilyn A. Johnson, Ph.D.

Director, Student Counseling Center

Robert A. Dame, M.B.A., M.A.

Director, Student Financial Aid

Ann Bartolotta, M.S.

Director, Student Affairs

Edward T. Baloun

Director, Financial Affairs

Beverly B. Huckman

Equal Opportunity Coordinator for Academic
Affairs

Rush Medical College

Henry P. Russe, M.D.

Dean, Rush Medical College

L. Penfield Faber, M.D.

Associate Dean, Surgical Sciences and Serv-
ices, and Associate Vice President, Medical
Affairs

Walter Fried, M.D.

Associate Dean, Medical Sciences and Serv-
ices, and Associate Vice President, Medical
Affairs

Gerald S. Gotterer, M.D., Ph.D.

Associate Dean, Medical Student Programs

John S. Graettinger, M.D.

Associate Dean, Graduate Medical Education

Harold A. Paul, M.D., M.P.H.

Associate Dean, Continuing Medical Education
and Educational Development

Lawrence J. Goodman, M.D.

Assistant Dean, Clinical Curriculum

Cheryl M. Gutman, M.D., M.Sc.

Assistant Dean, Office of Medical Student
Programs

Eunice C. Schuytema, Ph.D.

Assistant Dean, Preclinical Curriculum

Edward J. Eckenfels

Assistant Dean, Academic Counseling

Ronald S. Whitaker, M.S.

Assistant Administrator and Assistant to the
Dean

Jan L. Schmidt

Director, Office of Admissions

Rosita Ragan

Administrative Director, Office of Medical Stu-
dent Programs

College of Nursing

Luther P. Christman, Ph.D.

Dean, College of Nursing

Sue T. Hegyvary, Ph.D.

Associate Dean and Associate Vice President

Janet S. Moore, Ph.D.

Associate Dean and Associate Vice President

Marilee Donovan, Ph.D.

Acting Director, Graduate Program

Judith Jezek, M.S., M.A.

Director, Undergraduate Program

Faith Jones, Ed.D.

Director, Continuing Education

College of Health Sciences

John E. Trufant, Ed.D.

Acting Dean, College of Health Sciences

The Graduate College

John E. Trufant, Ed.D.

Dean, The Graduate College

Rush University Affiliations

Affiliated Colleges

Beloit College, Beloit, Wisconsin

Carleton College, Northfield, Minnesota

Colorado College, Colorado Springs, Colorado

Cornell College, Mount Vernon, Iowa

Fisk University, Nashville, Tennessee

Grinnell College, Grinnell, Iowa

Illinois Benedictine College, Lisle, Illinois

Illinois Institute of Technology, Chicago, Illinois

Knox College, Galesburg, Illinois

Lake Forest College, Lake Forest, Illinois

Lawrence University, Appleton, Wisconsin

Macalester College, St. Paul, Minnesota

Monmouth College, Monmouth, Illinois

North Central College, Naperville, Illinois

Ripon College, Ripon, Wisconsin

Wheaton College, Wheaton, Illinois

Clinical Network

Bethany Hospital, Chicago, Illinois

Central DuPage Hospital, Winfield, Illinois

Christ Hospital, Oak Lawn, Illinois

Community Memorial General Hospital,

LaGrange, Illinois

Copley Memorial Hospital, Aurora, Illinois

Galesburg Cottage Hospital, Galesburg, Illinois

Grant Hospital of Chicago, Chicago, Illinois

LaPorte Hospital, LaPorte, Indiana

Mile Square Health Center, Inc., Chicago,

Illinois

Mount Sinai Hospital Medical Center, Chicago,
Illinois

St. Mary's Hospital, Streator, Illinois

Schwab Rehabilitation Center, Chicago, Illinois

Skokie Valley Hospital, Skokie, Illinois

Swedish Covenant Hospital, Chicago, Illinois

West Suburban Hospital Medical Center, Oak
Park, Illinois

Committees

Rush Medical College

Committees exist within the structure of Rush Medical College to assure the appropriate involvement of faculty and students in the various activities of the college. Except for the Rush Medical College Student Council, each committee includes representation from both faculty and students.

Faculty Council. The Faculty Council is the senior representative body within Rush Medical College. The membership includes nine professors, three associate professors, three assistant professors, three instructors or assistants, and one student from each class, each chosen by vote of the corresponding constituency.

Committee on Committees. The Committee on Committees has as its primary responsibility the nomination of individuals to serve on the various standing committees of the medical college. Sitting as the Committee on Dialogue, the committee is also responsible for dealing with grievances presented by members of the Rush Medical College community.

Student Council. The Student Council is the representative government for students of Rush Medical College and consists of six representatives from each of the four classes within the medical school. The council provides a mechanism to facilitate the exchange of information on matters affecting the student body.

The standing committees of Rush Medical College include:

Committee on Academic Freedom. This committee concerns itself with questions of academic freedom. It works closely with the Committee on Dialogue and the Faculty Council in resolving grievances involving questions of academic freedom.

Committee on Admissions. Members of this committee are responsible for recommending to the dean students for admission to the medical college. The duties of the committee members include selecting those applicants who will be interviewed; interviewing candidates; choosing applicants who will be offered acceptances to the medical college; and reviewing criteria applied from medical student admissions to maintain academic excellence.

Committee on Affirmative Action. The Committee on Affirmative Action serves to advise the dean and the faculty regarding policies, procedures, and issues which affect the recruitment, retention, and promotion of minority and women faculty and students in the college. The committee works closely with the equal opportunity coordinator for academic affairs.

Curriculum Committee. The Curriculum Committee is responsible for the design and content of the curriculum. On the basis of its own surveys and the evaluations of the Committee on Educational Appraisal, this committee evaluates the need for and, as deemed appropriate, develops recommendations for curricular modification.

Committee on Educational Appraisal. The Committee on Educational Appraisal is responsible for evaluating the courses of Rush Medical College. The committee administers, with the assistance of each course director, and analyzes course, clerkship, and faculty assessments provided by students. An annual report is produced for each course within the medical college curriculum.

Committee on Educational Resources. The principal function of the Committee on Educational Resources is to evaluate the utilization, organization and effectiveness of the sections of the Center for Educational Resources as they relate to the faculty and students of the medical college.

Committee on Senior Faculty Appointments and Promotions. The function of the Committee on Senior Faculty Appointments and Promotions (COSFAP) is to review recommendations submitted by chairpersons for appointments or promotions of faculty members to academic ranks of indefinite terms in Rush Medical College. Recommendations for appointments or promotions are then submitted to the Office of the Dean for further action.

Committee on Student Affairs. The Committee on Student Affairs (COSA) is concerned with noncurricular needs of medical students. Its regular responsibilities include an annual evaluation of the effectiveness and adequacy of programs and services available to students, improvement of current programs, and initiation of new activities when their need is recognized. The committee works closely with the University Office of Student Services.

Committee on Student Evaluation and Promotion.

The Committee on Student Evaluation and Promotion (COSEP) is responsible for developing policies concerning student status, evaluation and promotion; reviewing the academic performance of medical college students; making recommendations to the Faculty Council and dean concerning promotion, graduation and dismissal of students; and determining requirements for remedial action for students who have failed medical college courses.

Committee on Student Judiciary

Review. It is the function of the Student Judiciary Review Committee to review any act suggesting unprofessional conduct by a medical student brought to its attention. Requests for action by the Committee on Student Judiciary Review in reference to individual students of Rush Medical College are made to the dean of the college by members of the Rush Medical College faculty. Such requests are reviewed by the dean and the chairperson of the Committee on Student Judiciary Review and a decision made whether to bring the issue to the full committee or to seek resolution of the issue by alternative means.

College of Nursing

Faculty Senate. The Faculty Senate is the governing body for the faculty and operates as the Committee on Committees. The senate has nine members representing each academic rank level, as well as members from the faculty-at-large. Members of this body are elected annually and the senate elects its own chairperson. Two student representatives also serve on the senate.

The standing committees of the College of Nursing assist with the work of the college. Members of the committees are elected by the total faculty every June. The committees include:

Graduate Admissions, Progressions and Graduations. This committee is responsible for maintaining the admission and progression standards and policies for the graduate programs. There are five members on this committee plus one student representative.

Graduate Curriculum. This committee serves as the monitoring resource for the graduate curriculum. The committee reviews all new courses and/or major changes in the curriculum, establishes and monitors methodology for curriculum evaluation and provides overall consistency for curriculum development. There are five members on this committee plus one student representative.

Undergraduate Admissions and Progressions.

This committee is responsible for maintaining the admission and progression standards and policies for the undergraduate program. There are six members on this committee plus one student representative.

Undergraduate Curriculum. This committee serves as the monitoring resource for the undergraduate curriculum. The committee reviews all new courses and/or major changes in the curriculum, establishes and monitors methodology for curriculum evaluation and provides overall consistency for curriculum development. There are six members on this committee plus two student representatives.

Affirmative Action. This committee is involved with the recruitment and retention of students and faculty from minority groups and data collection and research in relation to affirmative action activities and progress. There are six members on this committee including one student representative.

Educational Resource. This committee deals with the educational resource needs of the College of Nursing and provides liaison with the University Educational Resource Committee. There are seven members on this committee including two student representatives.

Faculty Appointments and Promotions Committee.

This committee acts upon the appointments and promotions of faculty in accordance with the Rules of Governance. There are five members on this committee.

Faculty Development Committee. This committee is responsible for the design and implementation of programs to promote the growth and development of faculty. There are six members on this committee including a student representative.

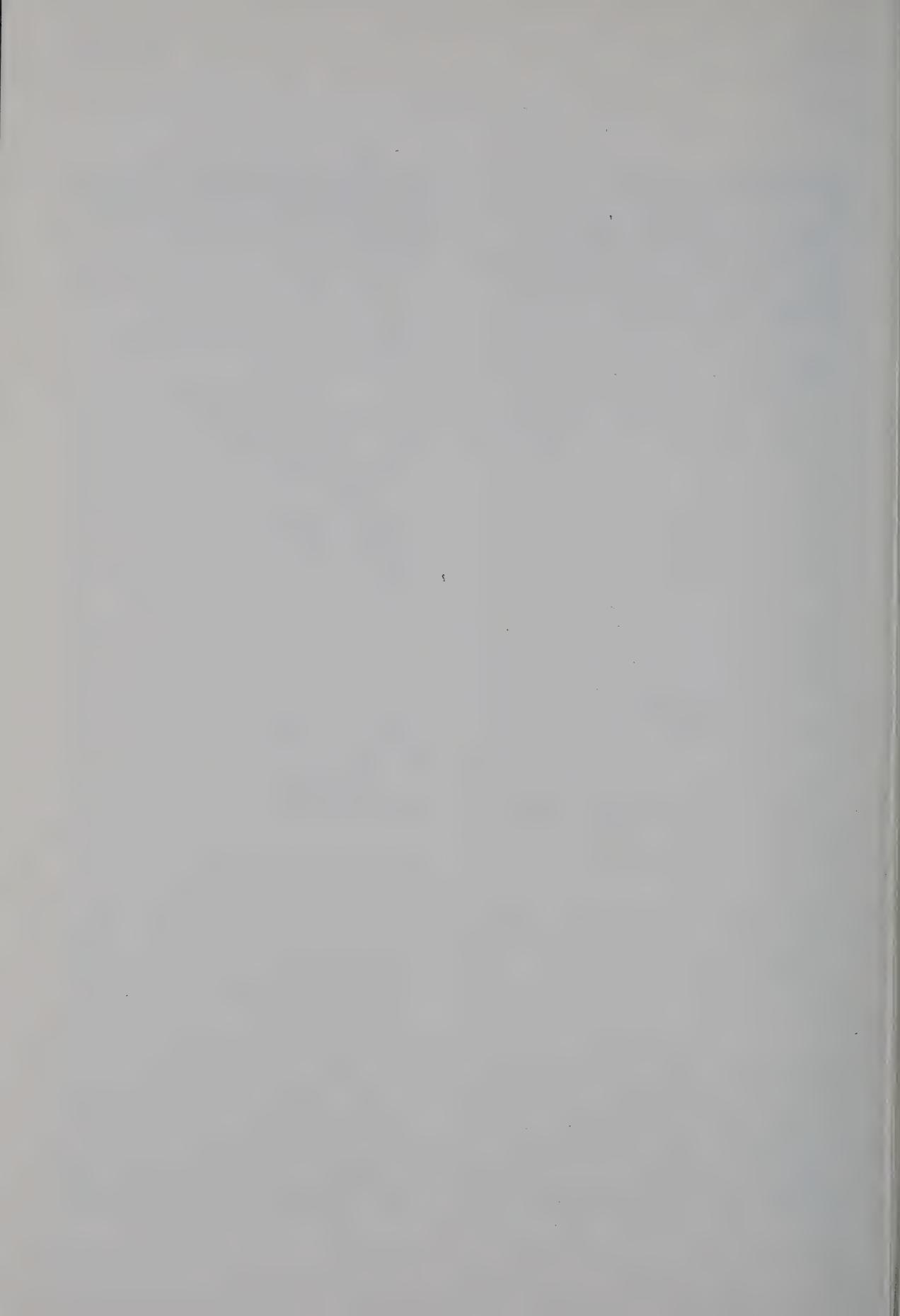
College of Health Sciences

College Council. The senior representative governing body of the College of Health Sciences is the College Council. The College Council membership is comprised of both faculty members and students. The dean of the college serves as chairperson. Faculty members represent all departments and ranks. Students represent both undergraduate and graduate levels.

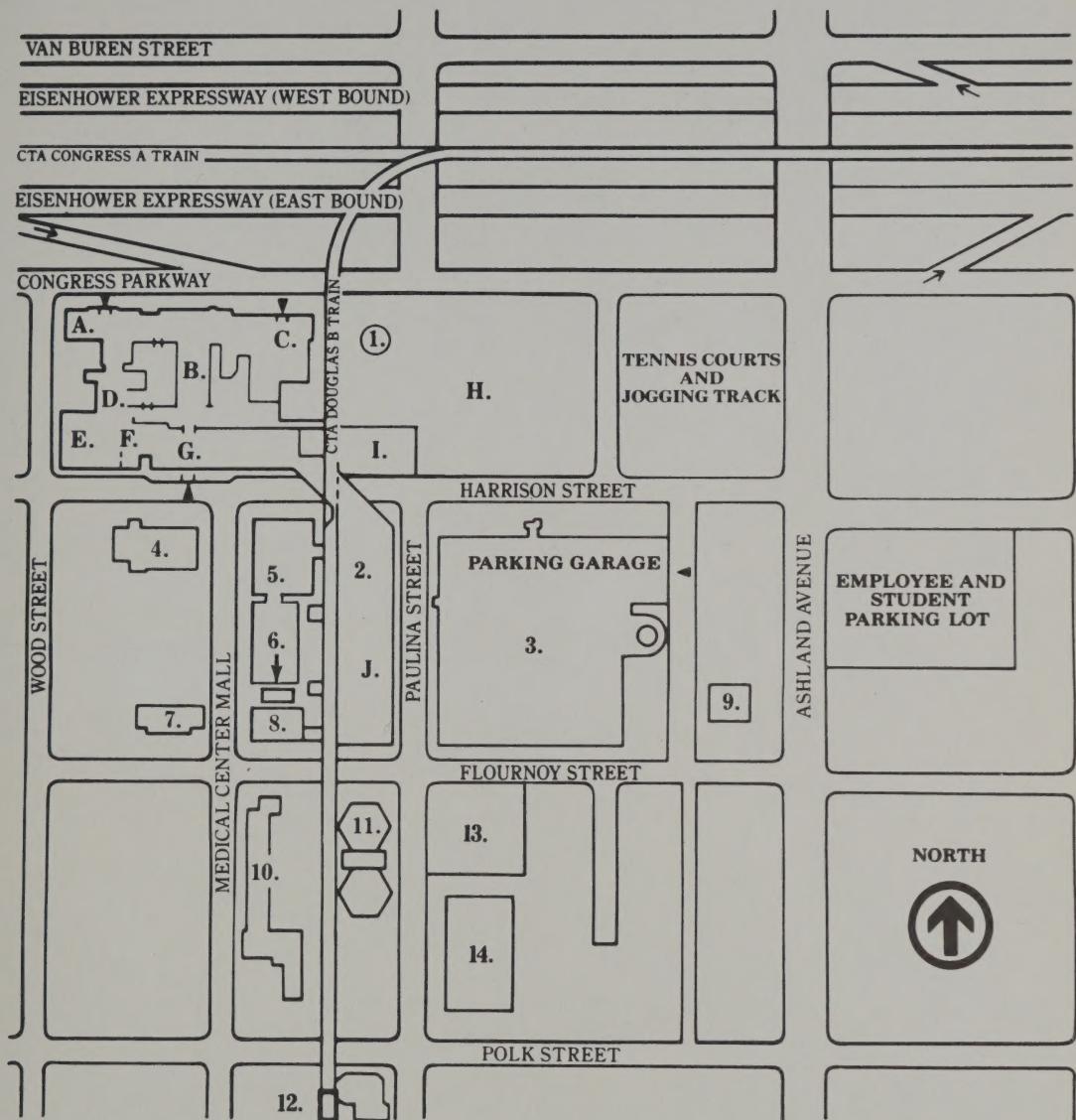
The Graduate College

The Graduate College Council. The Graduate College Council is the senior representative body for The Graduate College. The committee is made up of all program directors, three faculty-at-large representatives, and two student representatives. The Graduate College Council is chaired by the dean of The Graduate College.

Some academic policies and procedures may differ in detail from one division to another; however, each division's program and regulations must be reviewed for approval by The Graduate College Council.



**Rush-Presbyterian-St. Luke's
Medical Center
Rush University Campus**



1. Academic Facility
J. Employee and Student Cafeteria

2. Presby-St. Luke's Hospital
A. Jones
B. Pavilion
C. Kellogg Pavilion
D. Murdock
E. Rawson
F. Senn
G. Jelke SouthCenter
H. Atrium Building
I. Woman's Board
Cancer Treatment Center

3. Parking Garage
4. Schweppes-Sprague Hall
5. Professional Building
6. Parcourse Fitness Cluster
7. Kidston Apartments
8. McCormick Apartments
9. Laurance Armour Day School
10. Marshall Field IV
Mental Health Center
11. Johnston R. Bowman
Health Center for the Elderly
12. Polk Street Station, CTA
13. Basketball/Volleyball Courts
14. Human Resources Center for
Employee Development

